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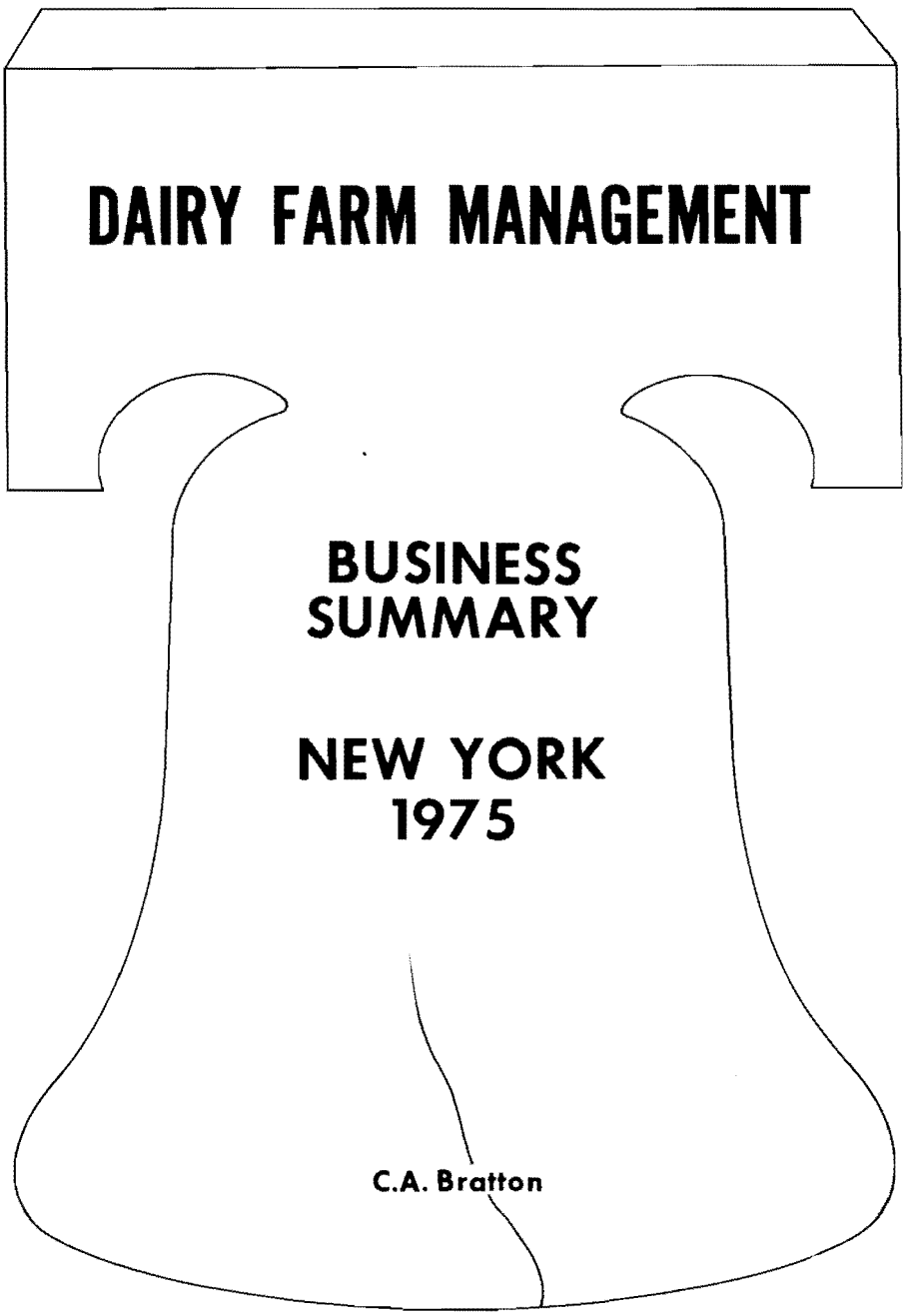
A.E. Res. 76-7

# DAIRY FARM MANAGEMENT



## BUSINESS SUMMARY

## NEW YORK 1975

C.A. Bratton

Department of Agricultural Economics
Cornell University Agricultural Experiment Station
New York State College of Agriculture and Life Sciences
A Statutory College of the State University
Cornell University, Ithaca, New York 14853

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# INTRODUCTION

Since 1955, farm business management projects have been a basic part of the management extension program in New York State. The College and the County Extension staffs cooperate in sponsoring these projects. In 1975, about 750 dairymen participated in these management projects. Each dairyman kept farm business records which were submitted to the College for summary and analysis. These projects provide the basis for extension educational programs and also data for applied research studies.

The Extension agents were responsible for organization of local groups and collection of the records. Regional summary reports were prepared for use by the agents in winter meetings with farmers. Each cooperator received a summary and analysis of his business and a regional report for use in studying his operation. The aim of these extension activities was to help the dairyman develop his managerial skills and solve his business management problems.

The records from all regions of the State have been combined for use in an applied research study of the factors affecting dairy farm incomes. This research provides current farm business data for use by dairymen, Extension agents, teachers, agribusinessmen, policy makers, and others concerned with the New York dairy industry.

A total of 605 farm business records have been included in the general dairy summary and analysis for 1975. These 605 farms do NOT represent the "average" for all dairy farms in the State. Participation was on a voluntary basis so not all areas were equally represented (see page 2). The 605 farms do represent a cross-section of better than average commercial operators in the State.

1975 Regional Summary Publications

| Region | Publication | Author(s) |
|---|---|---|
| Cortland County | A.E. Ext. 76-3 | R. S. Smith & S. F. Smith |
| Western Plateau | A.E. Ext. 76-10 | G. L. Casler |
| Eastern Plateau | A.E. Ext. 76-8 | G. J. Conneman & S. F. Smith |
| Western Plains | A.E. Ext. 76-17 | E. L. LaDue |
| Central Plain | A.E. Ext. 76-13 | R. A. Milligan |
| Central New York | A.E. Ext. 76-18 | S. F. Smith |
| Oneida-Mohawk | A.E. Ext. 76-15 | S. F. Smith |
| Lewis County | A.E. Ext. 76-7 | C. A. Bratton |
| Northern New York | A.E. Ext. 76-9 | C. A. Bratton |
| Northern Hudson | A.E. Ext. 76-11 | S. F. Smith |
| Columbia & Dutchess Counties | A.E. Ext. 76-12 | S. F. Smith |

Acknowledgements

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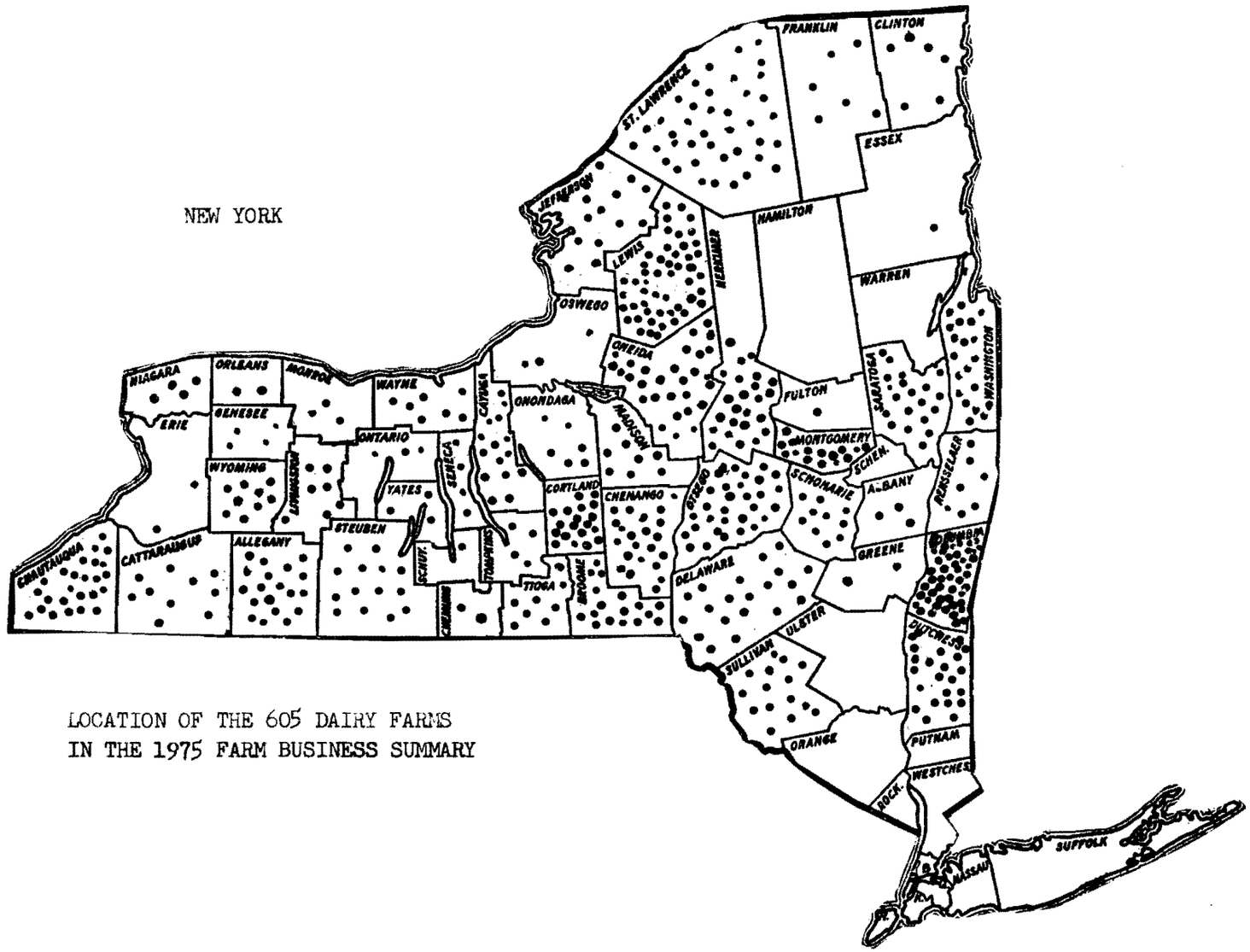
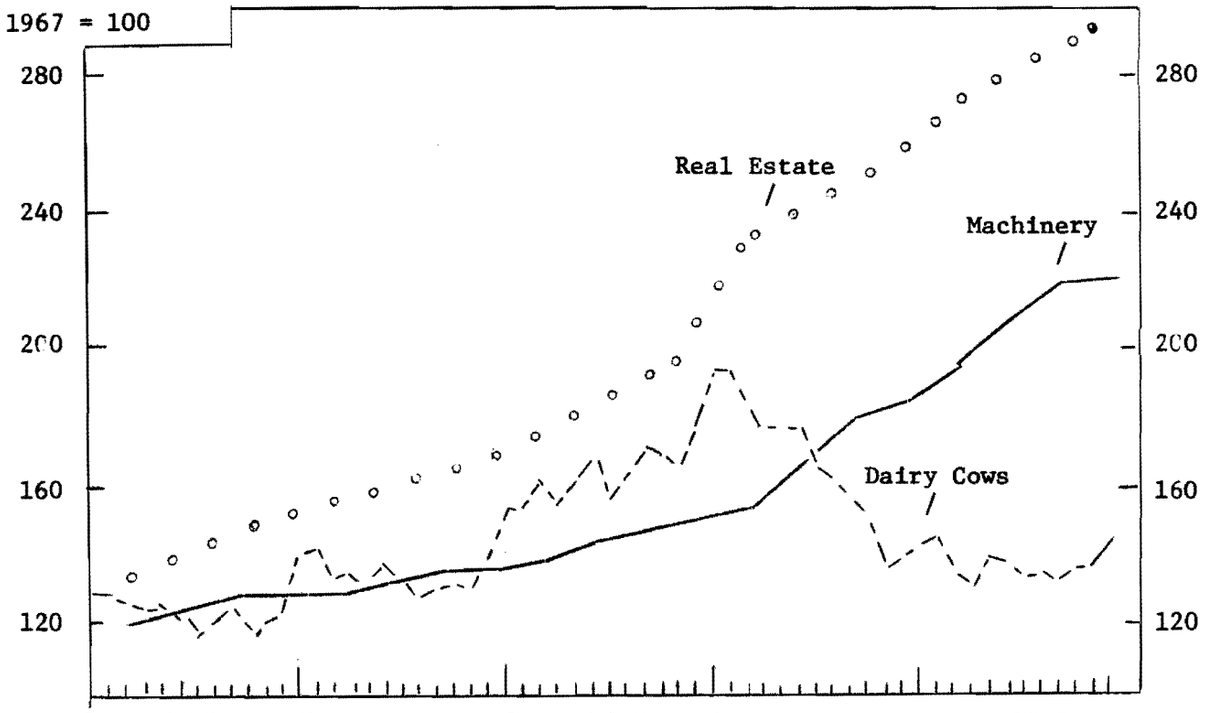
NEW YORK




LOCATION OF THE 605 DAIRY FARMS
IN THE 1975 FARM BUSINESS SUMMARY

VALUE OF N.Y. FARM REAL ESTATE, DAIRY COWS & MACHINERY, 1971-75




SOURCE: USDA - Agricultural Prices
Farm Real Estate Market Developments

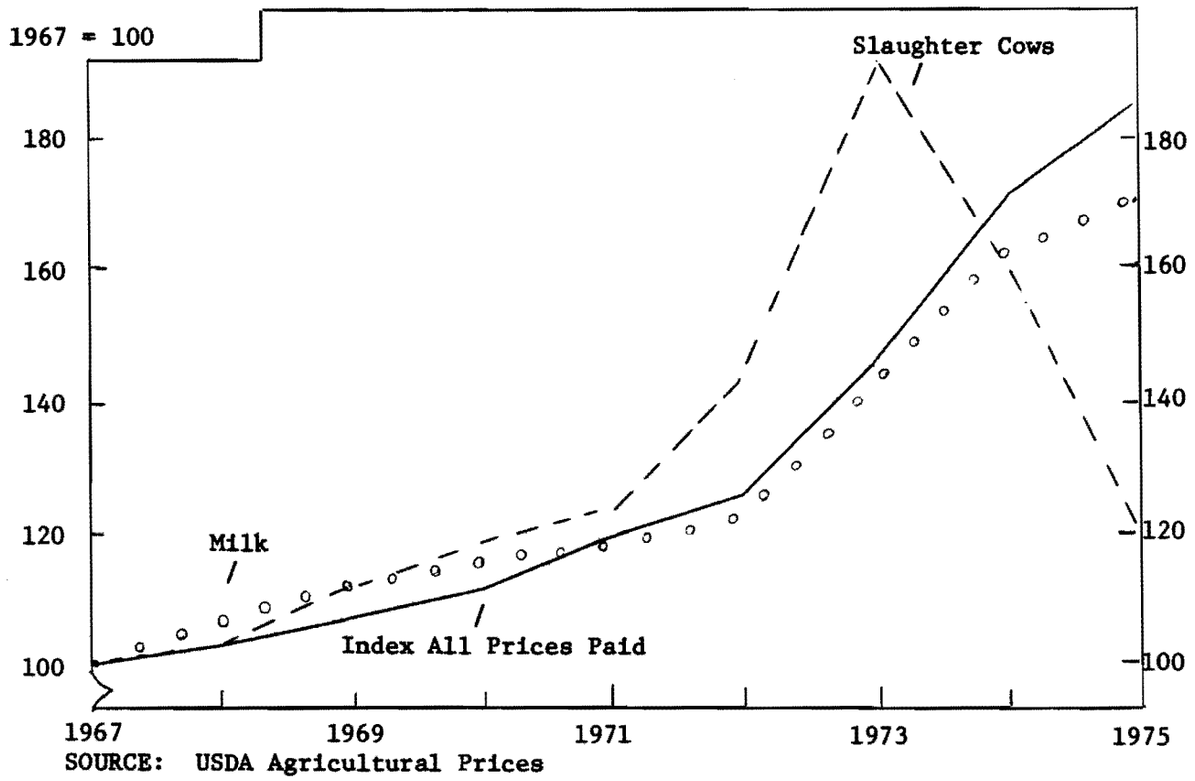
Price changes affect the inventory values on New York dairy farms. Real estate and machinery prices have risen steadily during the past five years, with the rate of rise in 1975 slightly less than in 1974. Dairy cow prices peaked in early 1974, dropped sharply during the year, then rose 3% in 1975. Real estate values tripled from 1967 to 1975, machinery prices more than doubled, while dairy cows were up 45%.

Table 1. REPORTED VALUES OF DAIRY FARM INVENTORY ITEMS, 1965-1975

| Year | N.Y. Dairy Cows Value/Head | N.Y. Dairy Cows 1967=100 | Machinery 1967=100 | N.Y. Farm Real Estate Value/Acre | N.Y. Farm Real Estate 1967=100 |
|---|---|---|---|---|---|
| 1965 | $238 | 79 | 92 | $184 | 86 |
| 1970 | 353 | 116 | 117 | 273 | 125 |
| 1973* (Dec.) | 550 | 177 | (Dec.) 150 | (Nov.) 442 | 199 |
| 1974* (Dec.) | 435 | 140 | (Dec.) 185 | (Nov.) 564 | 254 |
| 1975* (Dec.) | 450 | 145 | (Dec.) 222 | (Nov.) 654 | 294 |
| Percent change: | | | | | |
| '65 to '75 (av./yr.) | + 9% | | +14% | +26% | |
| '73 to '74 | -21% | | +23% | +28% | |
| '74 to '75 | + 3% | | +20% | +16% | |

* Latest figure reported for year, i.e., November for real estate.

PRICES RECEIVED AND PAID BY N.Y. DAIRY FARMERS, 1967-1975



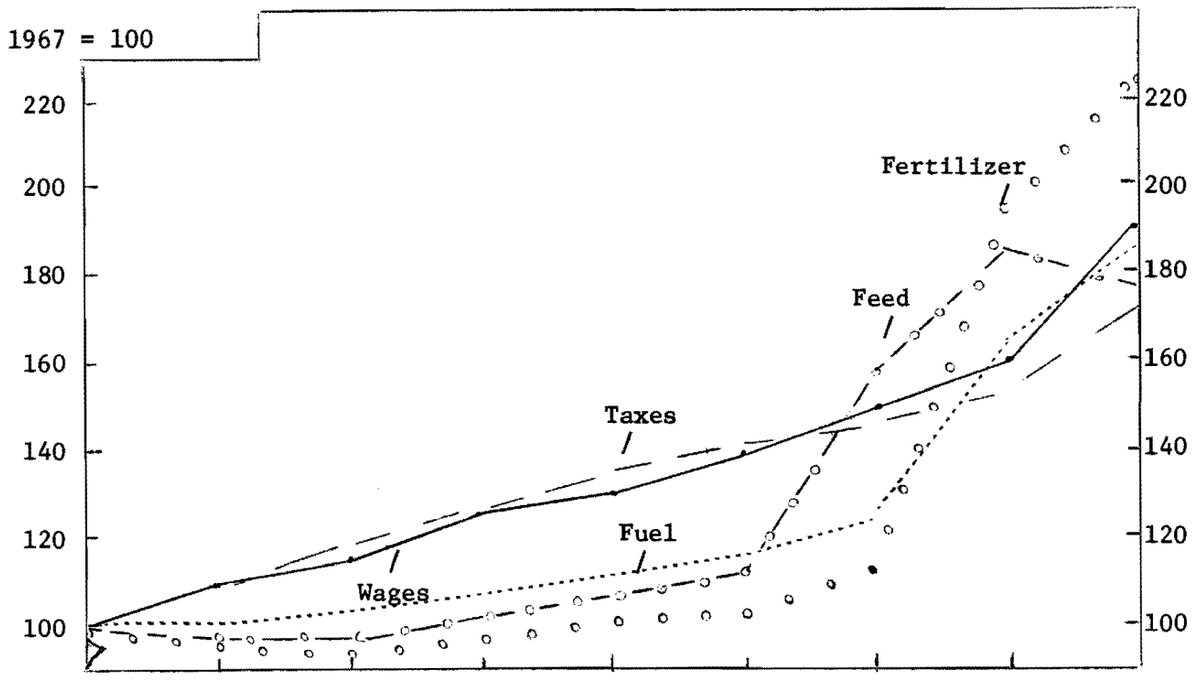

SOURCE: USDA Agricultural Prices

The relationship of prices received to prices paid determines the general level of incomes. The graph above shows the trend in prices since 1967 for milk, cull cows, and the index of all prices paid by New York dairy farmers. Since 1971, milk prices have lagged behind prices paid. Slaughter cow prices were unusually high in 1973 but dropped sharply in 1974 and 1975.

Table 2. PRICES RECEIVED AND PAID BY NEW YORK DAIRY FARMERS, 1965-1975

| Year | Milk 3.5% B.F. (cwt.) | Slaughter Cows (cwt.) | Prices Paid By New York Dairy Farmers (1967=100) | Monthly Farm Price/100 Lbs. of Milk, 1975 | |
|---|---|---|---|---|---|
| 1965 | $4.27 | $13.91 | 93 | January | $ 8.17 |
| 1966 | 4.79 | 17.35 | 96 | February | 8.17 |
| 1967 | 5.07 | 17.10 | 100 | March | 7.82 |
| 1968 | 5.43 | 17.60 | 103 | April | 7.71 |
| 1969 | 5.66 | 19.30 | 107 | May | 7.55 |
| 1970 | 5.89 | 20.70 | 112 | June | 7.61 |
| 1971 | 6.02 | 21.20 | 120 | July | 8.42 |
| 1972 | 6.25 | 24.48 | 126 | August | 9.10 |
| 1973 | 7.30 | 32.80 | 146 | September | 9.67 |
| 1974 | 8.24 | 27.40 | 172 | October | 10.17 |
| 1975 | 8.64 | 20.62 | 186 | November | 10.24 |
| | | | | December | 10.22 |

PRICES PAID BY FARMERS FOR SELECTED ITEMS, 1967-1975




SOURCE: USDA Agricultural Prices

In recent years, all prices paid by New York dairy farmers have risen but some more than others. From 1967 to 1975, taxes rose 62%, feed 77%, fuel 80%, wages 86%, and fertilizer 124%. Feed, fertilizer, and motor fuel prices which had increased gradually over the years, have risen sharply since 1973. The average price of fertilizer in 1975 was 15% higher than for 1974 and fuel was 11%. In contrast, taxes for 1975 were up 5% and feed was down 4% from a year earlier.

Table 3. PRICES PAID BY FARMERS FOR SELECTED ITEMS, 1965-1975

| Year | Index 1967=100 | | | | |
|---|---|---|---|---|---|
| | Feed | Fertilizer | Fuel | Wages | Taxes* |
| 1965 | 96 | 100 | 96 | 85 | 87 |
| 1970 | 103 | 98 | 107 | 126 | 129 |
| 1971 | 108 | 101 | 112 | 130 | 136 |
| 1972 | 112 | 103 | 115 | 140 | 142 |
| 1973 | 157 | 114 | 124 | 150 | 146 |
| 1974 | 185 | 195 | 162 | 160 | 154 |
| 1975 | 177 | 224 | 180 | 186 | 162 |
| % increase '74 to '75 | -4% | 15% | 11% | 16% | 5% |

* Revised

## SUMMARY OF THE FARM BUSINESS

### Resources

Information on the resources used is basic in the analysis of any business. The tables on this page report on the resources used and characteristics of the 605 farm businesses included in this study.

Table 4. BUSINESS CHARACTERISTICS AND RESOURCES USED
605 New York Dairy Farms, 1975

| Type of Business | No. | % | Business Records | No. | % | Dairy Records | No. | % |
|---|---|---|---|---|---|---|---|---|
| Individual | 488 | 81 | CAMIS | 123 | 20 | D.H.I.C. | 344 | 56 |
| Partnership | 104 | 17 | Account Book | 273 | 45 | Owner Sampler | 116 | 19 |
| Corporation | 13 | 2 | Agrifax | 106 | 18 | Other | 39 | 6 |
| | | | Farm Bureau | 13 | 2 | None | 116 | 19 |
| | | | Agway | 24 | 4 | | | |
| | | | Other | 16 | 11 | | | |

| Barn Type | No. | % | Milking System | No. | % | Milking System | No. | % |
|---|---|---|---|---|---|---|---|---|
| Stanchion | 389 | 64 | Bucket & carry | 27 | 5 | Herringbone | 164 | 27 |
| Free stall | 205 | 34 | Dumping station | 187 | 31 | Other parlor | 31 | 5 |
| Other | 11 | 2 | Pipeline | 196 | 32 | | | |

| Labor Force | My Farm | Average |
|---|---|---|
| Operator | _____ | 14 mo. |
| Family paid | _____ | 3 mo. |
| Family unpaid | _____ | 3 mo. |
| Hired | _____ | 9 mo. |
| Total | _____ | 29 mo. |
| Age of operator(s) | _____ | 42 |
| Estimated value operator's labor and management | $_____ | $10,500 |

| Land Used | My Farm | Farms | Acres |
|---|---|---|---|
| Total acres owned | _____ | 605 | 304 |
| Total acres rented | _____ | 494 | 102 |
| Total crop acres | _____ | 605 | 217 |
| Crop acres rented | _____ | 484 | 76 |

| Number of Cows | My Farm | Average |
|---|---|---|
| Beginning of year | _____ | 72 |
| End of year | _____ | 74 |
| Average for year | _____ | 72 |

Eighty-two percent of the 605 operators rented some land and 76 of the 217 crop acres or 35 percent were rented.

The average total farm inventory increased from $233,100 to $248,200 or 6 percent during 1975. The increase reflects both growth in the businesses and inflation. Changes in prices of major inventory items are shown on page 3.

Table 5. CAPITAL INVESTMENT - FARM INVENTORY VALUES
605 New York Dairy Farms, 1975

| | My Farm | | Average 605 Farms | | Percent |
|---|---|---|---|---|---|
| | 1/1/75 | 1/1/76 | 1/1/75 | 1/1/76 | Increase |
| Livestock | $_____ | $_____ | $ 49,006 | $ 51,826 | + 6% |
| Feed & supplies | _____ | _____ | 18,220 | 20,435 | +12 |
| Machinery & equipt. | _____ | _____ | 41,435 | 44,437 | + 7 |
| Land & buildings | _____ | _____ | 124,396 | 131,511 | + 6 |
| Total | $_____ | $_____ | $233,057 | $248,209 | + 6 |

Machinery and Real Estate Calculations

Capital outlay for machinery and buildings usually occur in large amounts which in turn are used over a number of years. Calculation of the depreciation to be charged to the 1975 business is shown below and is included as a farm expense on page 10.

Table 6. MACHINERY DEPRECIATION
605 New York Dairy Farms, 1975

| Item | My Farm | Average 605 Farms |
|---|---|---|
| Beginning Inventory | $_____ | $41,435 |
| Purchases | _____ | 8,234 |
| Total (1) | $_____ | $49,669 |
| End Inventory | $_____ | $44,437 |
| Sales | _____ | 166 |
| Total (2) | _____ | 44,603 |
| DEPRECIATION (1 minus 2) | $_____ | $ 5,066 |
| Percent Depreciation | _____% | 10% |

Lost capital represents the difference between the cost of real estate purchased during the year and the amount these improvements added to the sale value of the real estate. It is not included in farm expenses since building depreciation is based on the full cost of new buildings and will account for the lost capital over the life of the building.

Building depreciation was reported by the farmer and included the 1974 income tax depreciation plus the estimated depreciation on any new building in 1975.

Real estate appreciation was estimated by each farm operator. This appreciation includes the increase in market value and the building depreciation for the beginning package of real estate. It averaged about 4 percent of the beginning real estate inventory. This is probably underestimated since farmers find it difficult to realize how much values have risen.

Table 7. REAL ESTATE CALCULATIONS
605 New York Dairy Farms, 1975

| Item | My Farm | Average 605 Farms |
|---|---|---|
| Beginning Inventory | $_____ | $124,396 |
| Plus Cost of Purchases | $_____ | $ 5,448 |
| Less Lost Capital | _____ | -808 |
| Value Added | _____ | +4,640 |
| Less Bldg. Depreciation | $_____ | $-2,363 |
| Less items sold | _____ | -137 |
| Value Deducted | _____ | -2,500 |
| Plus Appreciation | _____ | +4,975 |
| End of Year Inventory | $_____ | $131,511 |

Receipts

Receipts from a business should be large enough to cover the operating and overhead costs and leave a return for the operator's labor and management. Here we look at sources and amounts of receipts for this group of farms.

Table 8. FARM RECEIPTS
605 New York Dairy Farms, 1975

| Item | My Farm | Average 605 Farms Per Farm | Average 605 Farms Per Cow | Percent |
|---|---|---|---|---|
| Milk sales | $_____ | $81,206 | $1,128 | 91 |
| Crop sales | _____ | 886 | 12 | 1 |
| Dairy cattle sold | _____ | 4,725 | 66 | 6 |
| Other livestock sales | _____ | 976 | 14 | 1 |
| Gas tax refunds | _____ | 141 | 2 | -- |
| Government payments | _____ | 281 | 4 | -- |
| Work off farm | _____ | 76 | 1 | -- |
| Custom machine work | _____ | 138 | 2 | -- |
| Miscellaneous | _____ | 1,044 | 14 | 1 |
| Total Cash Receipts | $_____ | $89,473 | $1,243 | 100 |
| Increase in livestock inventories | _____ | 2,820 | 39 | |
| Increase in feed and supplies | _____ | 2,215 | 31 | |
| TOTAL FARM RECEIPTS | $_____ | $94,508 | $1,313 | |

A reasonably good 1975 crop season combined with high feed prices resulted in an average increase in feed and supply inventories of $2,215. Cow prices rose some during the year, and cattle numbers increased so the 605 farms had a net increase in livestock inventories of $2,820. The number of cows increased from 72 in the beginning to 74 at the end of year, and the average livestock inventory value per cow (including heifers) was $681 at the beginning of the year and $700 at the end, or an increase of $19 per cow.

The average price received for milk sold in 1975 by the 605 farms was $8.65. The state average was $8.64 shown on page 4. Milk sales per cow averaged $1,128 per cow for the 605 farms while the top 10 percent of the farms based on labor income averaged $1,230 per cow (table 9).

Table 9. INCOME ANALYSIS

| Item | My Farm | Average 605 Farms | Top 10% |
|---|---|---|---|
| Average price per cwt. milk sold | $_____ | $8.65 | $8.66 |
| Milk sales per cow | $_____ | $1,128 | $1,230 |
| Total cash receipts per man | $_____ | $37,280 | $47,320 |

The average price per hundredweight of milk sold by the 605 farms in 1975 was $8.65. The average price is calculated by dividing the gross milk receipts for the year by the total pounds of milk sold. The variation in average price received is shown below.

Variation in Average Milk Price

| Average Price Received for Milk | Farms | |
|---|---|---|
| | Number | Percent |
| Below $8.00 | 19 | 3 |
| $8.00 - 8.24 | 54 | 9 |
| 8.25 - 8.49 | 190 | 31 |
| 8.50 - 8.74 | 189 | 31 |
| 8.75 - 8.99 | 57 | 9 |
| 9.00 - 9.24 | 42 | 7 |
| 9.25 - 9.49 | 33 | 6 |
| 9.50 or over | 21 | 4 |
| Total | 605 | 100 |

Dairymen often say there is nothing they can do about the price received for milk. This may be true as it pertains to the price at a particular time, but the variation shown here does indicate that the average annual prices received for milk by farmers do vary. Management practices account for some of the differences. Seasonality of production and butterfat test are two management items that affect the average price for the year.

Total farm receipts are sometimes used as a measure of size of business. The Census of Agriculture uses this measure in classifying farms. The distribution of total farm receipts of the 605 farms in 1975 is shown below.

Distribution of Farms by Total Farm Receipts

| Total Farm Receipts | Farms | |
|---|---|---|
| | Number | Percent |
| Under $ 40,000 | 56 | 9 |
| $ 40,000 - 49,999 | 64 | 11 |
| 50,000 - 59,999 | 66 | 11 |
| 60,000 - 69,999 | 70 | 12 |
| 70,000 - 79,999 | 72 | 12 |
| 80,000 - 89,999 | 48 | 8 |
| 90,000 - 99,999 | 38 | 6 |
| 100,000 - 119,999 | 51 | 8 |
| 120,000 - 149,999 | 41 | 7 |
| 150,000 - 199,999 | 50 | 8 |
| 200,000 or over | 49 | 8 |
| Total | 605 | 100 |

Only 9 percent of the 605 farms had receipts under $40,000 while 8 percent had receipts of $200,000 or more.

## Expenses

The farm expenses for the 605 farms averaged nearly $250 per day. This provides many places for dollar leaks. The average expenses per farm and per cow are shown below.

FARM EXPENSES
605 New York Dairy Farms, 1975

| Item | My Farm | Average 605 Farms Per Farm | Per Cow | Percent |
|---|---|---|---|---|
| **Labor** | | | | |
| Hired labor | $_____ | $ 6,923 | $ 96 | 10 |
| **Feed** | | | | |
| Dairy concentrate | _____ | 22,460 | 312 | 32 |
| Other feed | _____ | 1,081 | 15 | 1 |
| **Machinery** | | | | |
| Machine hire | _____ | 693 | 10 | 1 |
| Machinery repairs | _____ | 4,079 | 57 | 6 |
| Auto expense (farm share) | _____ | 315 | 4 | -- |
| Gas and oil | _____ | 2,735 | 38 | 4 |
| **Livestock** | | | | |
| Purchased animals | _____ | 2,146 | 30 | 3 |
| Breeding fees | _____ | 988 | 14 | 1 |
| Veterinary and medicine | _____ | 1,305 | 18 | 2 |
| Milk marketing | _____ | 1,821 | 25 | 3 |
| Other livestock expense | _____ | 2,716 | 38 | 4 |
| **Crops** | | | | |
| Lime and fertilizer | _____ | 4,607 | 64 | 7 |
| Seeds and plants | _____ | 1,483 | 21 | 2 |
| Spray & other crop expense | _____ | 1,263 | 18 | 2 |
| **Real Estate** | | | | |
| Land, building, fence repair | _____ | 1,430 | 20 | 2 |
| Taxes | _____ | 2,050 | 28 | 3 |
| Insurance | _____ | 1,379 | 19 | 2 |
| Rent | _____ | 1,130 | 16 | 2 |
| **Other** | | | | |
| Telephone (farm share) | _____ | 323 | 4 | -- |
| Electricity (farm share) | _____ | 1,381 | 19 | 2 |
| Interest paid | _____ | 6,196 | 86 | 9 |
| Miscellaneous | _____ | 1,084 | 15 | 2 |
| TOTAL CASH EXPENSES | $_____ | $69,588 | $ 967 | 100 |
| Machinery depreciation | _____ | 5,066 | 70 | |
| Building depreciation | _____ | 2,363 | 33 | |
| Unpaid labor | _____ | 1,050 | 14 | |
| Interest on equity capital @ 7% | _____ | 11,949 | 166 | |
| Decrease in livestock inventory | _____ | -- | -- | |
| Decrease in feed & supply inventory | _____ | -- | -- | |
| TOTAL FARM EXPENSES | $_____ | $90,016 | $1,250 | |

The cash expense classifications used on page 10 are taken from the "Cornell Farm Account Book." Lists of the items included in each category are presented on the inside back cover of that account book.

Interest paid on farm indebtedness was included as a cash expense in these summaries for the first time in 1973. Although debt payments usually include both interest and principal only the interest portion is included here.

Machinery and real estate depreciation - expenditures for machinery and buildings are usually made in large amounts. To include all the expenses in the year of purchase would inflate the farm expenses. Machinery depreciation was calculated on page 7, and the farmers reported their building depreciation as that shown on their income tax returns.

Unpaid family labor refers to work done by members of the family who are not paid cash wages. The operator estimates the number of months of unpaid labor. This is charged to the business at $350 per month.

Interest on equity capital at 7 percent has been included as a noncash expense item. This represents what the operator might have earned on his equity capital had he not had it invested in the farm business. This is often called an "opportunity cost." The end-of-year farm net worth (see page 15) is used as the equity capital for computing this interest charge.

Decrease in livestock and feed inventories is the amount that the beginning inventory for each of these two items exceeds the end inventory. Since this indicates a "using up" of inventory items, it is considered as a farm expense for the year. For the 605 farms, the net inventory change was an increase for feed and supplies and livestock. Space is provided for individual farms that might have a decrease.

Farm expenses can be classified on the basis of fixed, variable, and capital items as shown below:

| Overhead Expenses (Fixed) | |
|---|---|
| Land & building repairs | $ 1,430 |
| Property taxes | $ 2,050 |
| Insurance | 1,379 |
| Rent | 1,130 |
| Electricity | 1,381 |
| Telephone | 323 |
| Total Fixed Overhead | $ 7,693 |
| **Capital Expenses** | |
| Interest on equity capital | $11,949 |
| Interest paid | 6,196 |
| Machinery depreciation | 5,066 |
| Real estate depreciation | 2,363 |
| Total Capital Expenses | $25,574 |

| Operating Expenses (Variable) | |
|---|---|
| Labor | $ 6,923 |
| Feed | 23,541 |
| Machinery repairs | 4,079 |
| Gas and oil | 2,735 |
| Machine hire | 693 |
| Auto | 315 |
| Livestock purchased | 2,146 |
| Livestock expenses | 6,830 |
| Fertilizer and lime | 4,607 |
| Other crop expenses | 2,746 |
| Unpaid labor | 1,050 |
| Miscellaneous | 1,084 |
| Total Variable | $56,749 |

On these farms, the variable expenses accounted for 63 percent, the fixed 9 percent, and the capital expenses 28 percent of the total farm expenses.

## Financial Summary of Year's Business

The results of management are reflected in the net return from the business. Researchers have developed a number of ways to measure the returns from a farm business. Several common measures are reported here.

Table 11. NET CASH FARM INCOME
605 New York Dairy Farms, 1975

| Item | My Farm | Average 605 Farms Per Farm | Average 605 Farms Per Cow |
|---|---|---|---|
| Cash Farm Receipts | $_____ | $89,473 | $1,243 |
| Cash Farm Expenses | _____ | 69,588 | 967 |
| NET CASH FARM INCOME | $_____ | $19,885 | $ 276 |

Net cash farm income reflects the cash available from the year's operation of the business. Family living has first claim on cash income followed by fixed payments on debts. A family may have additional cash available if they have a nonfarm income. Cash flow is not a good measure of the profitableness of the business but it is useful when planning debt repayment programs.

Table 12. LABOR AND MANAGEMENT INCOME
605 New York Dairy Farms, 1975

| Item | My Farm | Average 605 Farms Per Farm | Average 605 Farms Per Cow |
|---|---|---|---|
| Total Farm Receipts | $_____ | $94,508 | $1,313 |
| Total Farm Expenses | _____ | 90,016 | 1,250 |
| LABOR & MANAGEMENT INCOME | $_____ | $ 4,492 | $ 63 |
| Number of Operators | _____ | (734) 1.21 | |
| LABOR & MGT. INCOME/OPERATOR | $_____ | $ 3,703 | |

Labor and management income is the return to the operator for his efforts in operating the business. A 7 percent charge for the use of the operator's equity capital in the business has been included as a farm expense. This interest charge reflects what the operator could have earned with this capital had it been invested elsewhere, such as in bank certificates. Labor and management income is the measure used most often for comparing farm businesses.

The average labor and management income per operator for these 605 dairy farms was $3,703. In addition, the operators had the use of a house and perquisites, such as milk and meat which should be included when considering the operator's net earnings. There was a wide range in the labor and management incomes as shown below. Thirty-seven percent of the farms had minus labor incomes for 1975 while six percent had labor incomes of $20,000 or more.

Distribution of Labor and Management Incomes Per Operator

| Labor and Management Income Per Operator | Farms | |
|---|---|---|
| | Number | Percent |
| $-10,000 & Below | 57 | 9 |
| -9,999 - -5,001 | 62 | 10 |
| -5,000 - -1 | 109 | 18 |
| 0 - 4,999 | 136 | 23 |
| 5,000 - 9,999 | 104 | 17 |
| 10,000 - 14,999 | 65 | 11 |
| 15,000 - 19,999 | 37 | 6 |
| 20,000 - 24,999 | 16 | 3 |
| 25,000 or More | 19 | 3 |

Labor, management, and ownership income per operator reflects the combined return to the farmer for his triple role of worker-manager, financier, and owner. This measure includes appreciation on real estate, and return on equity capital, and is the amount available for the operator's living and his gain in business net worth. The average labor, management, and ownership income per operator was $17,655 or nearly five times the labor and management income which explains in part how some farmers accumulate sizeable net worths with only modest labor incomes.

Table 13. LABOR, MANAGEMENT, AND OWNERSHIP INCOME
605 New York Dairy Farms, 1975

| Item | My Farm | Average 605 Farms | Percent |
|---|---|---|---|
| Labor and management income/farm (p. 12) | $_____ | $ 4,492 | 21 |
| Real estate appreciation (p. 7) | _____ | 4,975 | 23 |
| Interest on equity capital @ 7% (p. 10) | _____ | 11,949 | 56 |
| Total Per Farm | $_____ | $21,416 | 100 |
| Number of operators | _____ | (734) 1.21 | |
| LABOR, MANAGEMENT, AND OWNERSHIP INCOME PER OPERATOR | $_____ | $17,655 | |

Management income is another measure used in studying farm businesses. From labor and management income, the value of operator's labor is subtracted to get management income. In this study, operator's labor was valued at $6,000. This gives a management income per operator of minus $2,297 ($3,703 minus $6,000). If appreciation were included, the management income per operator would be $1,815.

Return on Equity Capital can be computed with or without real estate appreciation. To calculate return on equity capital (including real estate appreciation), the estimated value of operator's labor and management is deducted from labor, management, and ownership income. This return to equity capital is divided by the farm net worth to get the rate of return on equity capital. To compute return on equity capital, excluding real estate appreciation, real estate appreciation must be deducted from ownership income.

Table 14. RETURN ON EQUITY CAPITAL
605 New York Dairy Farms, 1975

| Item | My Farm | Av. 605 Farms |
|---|---|---|
| | Including Real Estate Appreciation | |
| Labor, Management & Ownership Income (p. 13) | $_____ | $21,416 |
| Value of Operator's Labor & Management | _____ | (1.21) 12,739 |
| RETURN ON EQUITY CAPITAL | $_____ | $ 8,677 |
| Amount of Equity Capital | $_____ | $170,700 |
| RATE OF RETURN ON EQUITY CAPITAL | _____% | 5.1% |
| | Excluding Real Estate Appreciation | |
| Return on Equity Capital (from above) | $_____ | $8,677 |
| Real Estate Appreciation | _____ | 4,975 |
| RETURN ON EQUITY CAPITAL | $_____ | $3,702 |
| Amount of Equity Capital | $_____ | $170,700 |
| RATE OF RETURN ON EQUITY CAPITAL* | _____% | 2.2% |

* The rate of return on the average capital was 4.1%.

The operators were asked to estimate the value of their labor and management on the basis of what they might be able to earn if they were to hire out in a similar position. The average estimate for the 734 operators was $10,500. This is in line with the value if determined by the value of the labor plus a management charge based on 5 percent of the cash receipts.

Returns Per Unit of Input

Income from a business can also be calculated in relation to various input units. For example, since these are family-type farms, the labor and management return can be figured on a per man basis. Returns can also be figured on a per cow basis. These are shown below.

| Returns to All Labor | |
|---|---|
| Labor & mgt. income per farm | $ 4,492 |
| Value hired labor | 6,923 |
| Value unpaid labor | 1,050 |
| Total Returns to Labor | $12,465 |
| Average man equivalent | 2.4 |
| Returns per man equivalent | $5,194 |
| Returns per hour (3,000 hrs./yr.) | $1.73 |

| Returns Per Cow | |
|---|---|
| Net cash farm income/cow | $276 |
| Labor & mgt. income/cow | $63 |
| Labor, management and ownership income/cow | $297 |

Farm Family Financial Situation

Table 15. FARM FAMILY FINANCIAL SITUATION
590 New York Dairy Farms, January 1, 1976

| Item | My Farm | Average 590 Farms Amount | Percent |
|---|---|---|---|
| **Assets** | | | |
| Livestock | $_____ | $ 51,734 | 19 |
| Feed and supplies | _____ | 20,373 | 7 |
| Machinery and equipment | _____ | 44,308 | 16 |
| Land and buildings | _____ | 131,963 | 48 |
| Co-op investment | _____ | 4,032 | 1 |
| Accounts receivable | _____ | 7,291 | 3 |
| Cash and checking accounts | _____ | 1,927 | 1 |
| Total Farm Assets | $_____ | $261,628 | 95 |
| Savings accounts | $_____ | $ 2,998 | 1 |
| Cash value life insurance | _____ | 2,630 | 1 |
| Stocks and bonds | _____ | 1,627 | 1 |
| Nonfarm real estate | _____ | 2,726 | 1 |
| Auto (personal share) | _____ | 706 | -- |
| All other | _____ | 1,873 | 1 |
| Total Nonfarm Assets | _____ | 12,560 | 100 |
| TOTAL ASSETS | $_____ | $274,188 | |
| **Liabilities** | | | |
| Real estate mortgage | $_____ | $ 48,884 | 54 |
| Liens on cattle & equipment | _____ | 30,402 | 33 |
| Installment contracts | _____ | 2,149 | 2 |
| Notes and other farm debt | _____ | 10,085 | 11 |
| Total Farm Liabilities | $_____ | $ 91,520 | 100 |
| Nonfarm Liabilities | _____ | 502 | |
| TOTAL LIABILITIES | $_____ | $ 92,022 | |
| Farm Net Worth (equity capital) | $_____ | $170,108 | |
| Family Net Worth | $_____ | $182,166 | |

The financial situation is an important part of the farm business summary. It has a direct effect on current cash outflow and future capital investment decisions. A farmer may have a good labor income but a high debt payment schedule may seriously restrict his management flexibility. In the 605 records for 1975, a total of 590 submitted financial situation statements.

Total farm assets accounted for 95 percent of the total assets. Real estate mortgages were the largest liability and accounted for 54 percent of all debts. Equity capital for the 590 farms averaged $170,108, while the average equity capital for the 605 farms was $170,700 (see p. 14). The difference comes from the variation in the 15 farms that did not submit financial statements.

Table 16. FINANCIAL MEASURES AND DEBT COMMITMENTS
590 New York Dairy Farms, January 1, 1976

| Measure | My Farm | Average 590 Farms | Average Top 10% Farms |
|---|---|---|---|
| Percent equity | _____% | 66% | 74% |
| Farm debt per cow | $_____ | $1,250 | $937 |
| Available for debt service and living | $_____ | $26,000 | $53,245 |
| Scheduled annual debt payments | $_____ | $15,700 | $18,835 |
| Scheduled debt payment per cow | $_____ | $214 | $168 |
| Scheduled debt payment as % milk check | _____% | 19% | 14% |

Equity capital, or farm net worth, is the difference between the total farm inventory and the total farm liabilities. It represents the amount of farm capital provided by the operator.

Percent equity is the family net worth divided by the total assets. This indicates the general equity position of the family for credit purposes.

Farm debt per cow is total farm liabilities divided by number of cows. It indicates the relative debt load per production unit.

Available for debt service and living is the net cash farm income plus the interest paid. In planning debt repayments, subtract the expected family living expenses to determine the amount available for debts.

Scheduled annual debt payments represent the commitments outstanding as of January 1, 1976. When figured on a per cow or percent of milk check basis, the reasonableness of the debt commitment can be appraised.

As shown in table 17, there did not appear to be any definite relationship between herd size and percent equity or debt per cow.

Table 17. FINANCIAL SITUATION BY SIZE OF HERD
605 New York Dairy Farms, 1975

| Herd Size (Cows) | Number of Farms | Number of Cows | Total Farm Assets | Farm* Liabilities | Farm Equity Capital | Percent Equity | Debt Per Cow |
|---|---|---|---|---|---|---|---|
| Under 40 | 88 | 31 | $128,800 | $ 36,900 | $ 91,900 | 73% | $1,200 |
| 40 - 54 | 161 | 46 | 174,200 | 59,300 | 114,900 | 68 | 1,300 |
| 55 - 69 | 128 | 61 | 224,900 | 83,700 | 141,200 | 64 | 1,400 |
| 70 - 84 | 70 | 75 | 286,700 | 113,000 | 173,700 | 62 | 1,500 |
| 85 - 99 | 43 | 91 | 309,500 | 98,900 | 210,600 | 69 | 1,100 |
| 100 - 114 | 31 | 106 | 383,200 | 132,800 | 250,400 | 66 | 1,300 |
| 115 - 129 | 25 | 120 | 433,800 | 137,800 | 296,000 | 70 | 1,100 |
| 130 - 149 | 19 | 139 | 486,100 | 167,500 | 318,600 | 67 | 1,200 |
| 150 & Over | 40 | 191 | 631,800 | 228,900 | 402,900 | 65 | 1,200 |

* For the 15 farms not submitting financial statements, liabilities were estimated by dividing the amount of interest paid by 7%.

## ANALYSIS OF THE FARM BUSINESS

A systematic analysis of the operation helps to determine strengths and weaknesses in the business. In this part, five business factors are examined: size of business, rates of production, labor efficiency, capital efficiency, and cost control. The 1975 averages of selected measures for these factors for the 605 farms, and the average for the 10% with the highest labor and management incomes are reported along with general relationships of factors to labor income. Since the measures examined are interrelated, all factors should be studied before arriving at major conclusions.

### Size of Business

Size has an effect on other factors such as labor efficiency, cost control, and capital efficiency. The prices received and paid are often affected by volume which is a function of size. Farm management studies show that in general larger farm businesses (when well managed) make larger labor incomes. Two basic reasons for this are that larger businesses make possible more efficient use of overhead inputs such as labor and machinery, and there are more units on which to make a profit.

Table 18. MEASURES OF SIZE OF BUSINESS
605 New York Dairy Farms, 1975

| Measure | My Farm | Av. 605 Farms | Av. Top 10% Farms |
|---|---|---|---|
| Number of cows | _____ | 72 | 112 |
| Number of heifers | _____ | 54 | 88 |
| Man equivalent | _____ | 2.4 | 3.2 |
| Total acres in crops | _____ | 217 | 331 |
| Pounds of milk sold | _____ | 938,600 | 1,589,000 |
| Total work units | _____ | 803 | 1,242 |
| Total cash receipts | $_____ | $89,473 | $151,414 |
| Total investment (end inventory) | $_____ | $248,209 | $362,517 |

Number of cows is the average number in the herd for the year. Where available, the D.H.I.C. annual average is used.

Total acres in crops includes all acres on which crops were harvested during the 1975 year. It does not include cropland pasture or uncropped land.

Man equivalent is the amount of labor available on the farm during the year in terms of full-time man years. Work of part-time employees and family members is converted to full-time man equivalent.

Total work units represents the number of productive man days that would be required under average conditions to care for the acreage of crops grown and the number of livestock handled. A man work unit is the average amount of productive work accomplished in ten hours.

Table 19. COWS PER FARM AND LABOR AND MANAGEMENT INCOME
605 New York Dairy Farms, 1975

| Number of Cows | Number of Farms | Percent of Farms | Labor & Management Income Per Operator | Per Cow |
|---|---|---|---|---|
| Under 40 | 88 | 14% | $ 280 | $ 9 |
| 40 - 54 | 161 | 27 | 2,290 | 55 |
| 55 - 69 | 128 | 21 | 3,190 | 60 |
| 70 - 84 | 70 | 12 | 560 | 10 |
| 85 - 99 | 43 | 7 | 4,000 | 60 |
| 100 - 114 | 31 | 5 | 5,780 | 69 |
| 115 - 129 | 25 | 4 | 9,130 | 110 |
| 130 - 149 | 19 | 3 | 11,970 | 131 |
| 150 - 179 | 22 | 4 | 14,170 | 111 |
| 180 - 199 | 8 | 1 | 2,540 | 24 |
| 200 & Over | 10 | 2 | 11,850 | 68 |

The relation of size of business to labor and management income was observed for size as measured by number of cows and by man equivalent. In general, the larger the businesses the higher the labor incomes per operator. This relationship is consistent with that of earlier studies. A well-managed large farm will provide the operator a higher income than a well-managed small one, but a large farm poorly managed also can lose more.

The labor and management income for the 22 farms with 150 to 179 cows was much higher than for any other group. These farms averaged 162 cows, sold 522,700 pounds of milk per man, 28 percent of milk check went for feed, and they received an average of $8.68 per cwt. of milk sold, and twenty had free stall barns. This group ranked high in the major factors affecting incomes. The 22 farms were scattered over 18 counties in all regions of the state.

Man equivalent is often used as a measure of size. It is of interest that 75 percent of the farms had man equivalents of less than 3.0 (table 20). Thirty-four percent of the farms had less than 2.0 men and only 10 percent had 4.0 or more. The farms with a man equivalent of 4.0 or more did have higher labor and management incomes per operator.

Table 20. MAN EQUIVALENT PER FARM AND LABOR AND MANAGEMENT INCOME
605 New York Dairy Farms, 1975

| Man Equivalent | Number of Farms | Percent of Farms | Number of Cows | Labor & Management Income Per Operator |
|---|---|---|---|---|
| 1.0 - 1.4 | 89 | 15% | 40 | $2,790 |
| 1.5 - 1.9 | 114 | 19 | 46 | 2,130 |
| 2.0 - 2.4 | 162 | 27 | 60 | 2,930 |
| 2.5 - 2.9 | 82 | 14 | 75 | 3,630 |
| 3.0 - 3.4 | 66 | 11 | 92 | 4,470 |
| 3.5 - 3.9 | 30 | 5 | 112 | 2,750 |
| 4.0 - 4.4 | 26 | 4 | 130 | 5,530 |
| 4.5 & Over | 36 | 6 | 180 | 6,720 |

## Rates of Production

Production per animal and per acre are factors that affect farm incomes.

Table 21. MEASURES OF RATES OF PRODUCTION
605 New York Dairy Farms, 1975

| Item | My Farm Acres | My Farm Yield | Av. 605 Farms Acres | Av. 605 Farms Yield | Average Yield Top 10% Farms |
|---|---|---|---|---|---|
| Milk sold per cow (lbs.) | _____ | _____ | --- | 13,000 | 14,200 |
| All hay crops (tons H.E./A.) | _____ | _____ | 120 | 2.6 | 3.1 |
| Corn silage (tons/A.) | _____ | _____ | 59 | 14.0 | 15.9 |
| All forage crops (tons H.E./A.) | _____ | _____ | 179 | 3.3 | 3.9 |
| Grain corn (bu./A.) | _____ | _____ | 24 | 94 | 102 |
| Oats (bu./A.) | _____ | _____ | 7 | 56 | 61 |

Pounds of milk sold per cow is calculated by dividing the total pounds of milk sold by the average number of cows.

Tons of hay crops per acre is calculated by adding the hay equivalent of hay crop silage and green chop to the dry hay and dividing by the total acres used for hay crops.

Tons of hay equivalent per acre of all forages is determined by adding tons of hay equivalent of corn silage to the tons of hay crops and dividing the total tons of hay equivalent from all roughage by the total acres used for roughages. This measure indicates how intensively the roughage land is used.

Studies have shown repeatedly that farms with higher rates of production tend to have higher labor incomes. In 1975, the farms with the higher rates of production tended to be larger, bought more feed per cow, and in general had higher incomes.

Table 22. MILK SOLD PER COW AND LABOR AND MANAGEMENT INCOME
605 New York Dairy Farms, 1975

| Pounds of Milk Sold Per Cow | Number of Farms | Number of Cows | Feed Bought Per Cow | Labor & Management Income Per Operator | Labor & Management Income Per Cow |
|---|---|---|---|---|---|
| Under 10,000 | 72 | 55 | $197 | $-2,170 | $-38 |
| 10,000 - 10,999 | 50 | 66 | 252 | -2,420 | -50 |
| 11,000 - 11,999 | 92 | 61 | 290 | 2,190 | 36 |
| 12,000 - 12,999 | 108 | 77 | 313 | 1,600 | 26 |
| 13,000 - 13,999 | 124 | 80 | 323 | 5,100 | 87 |
| 14,000 - 14,999 | 80 | 78 | 344 | 6,190 | 102 |
| 15,000 - 15,999 | 52 | 91 | 362 | 10,260 | 155 |
| 16,000 and Over | 27 | 76 | 412 | 10,060 | 169 |

Labor Efficiency

Accomplishments per worker are used to measure labor efficiency. This is an important factor affecting labor and management incomes.

Table 23. MEASURES OF LABOR EFFICIENCY
605 New York Dairy Farms, 1975

| Measure | My Farm | Av. 605 Farms | Av. Top 10% Farms |
|---|---|---|---|
| Number of cows per man | _____ | 30 | 35 |
| Pounds of milk sold per man | _____ | 387,900 | 501,300 |
| Work units per man | _____ | 332 | 392 |
| Crop acres per man | _____ | 90 | 103 |

Pounds of milk sold per man is determined by dividing the total pounds of milk sold by the man equivalent. This is probably the best measure of labor efficiency for dairy farms.

Labor accomplishments (efficiency) depends on a number of things. Among these are the amount of mechanization, the field and building layout, the work methods used, and the abilities of the workers. All of these are management items under the control of the operator.

The 10 percent of the farms with the highest labor and management incomes were considerably above the average of all 605 farms in the four measures of labor efficiency. The top 10 percent sold 30 percent more milk per man than the average of all farms.

The relationship of labor efficiency to labor income was positive on the 605 farms. The higher output per man was achieved by more and better cows.

Table 24. MILK SOLD PER MAN AND LABOR AND MANAGEMENT INCOME
605 New York Dairy Farms, 1975

| Pounds of Milk Sold Per Man | Number of Farms | Number of Cows | Lbs. Milk Per Cow | Labor & Management Income Per Operator | Per Cow |
|---|---|---|---|---|---|
| Under 250,000 | 94 | 43 | 10,500 | $-2,210 | $-56 |
| 250,000 - 299,999 | 77 | 52 | 11,800 | -380 | -5 |
| 300,000 - 349,999 | 106 | 65 | 12,200 | 1,440 | 24 |
| 350,000 - 399,999 | 96 | 69 | 13,100 | 3,700 | 70 |
| 400,000 - 449,999 | 89 | 78 | 13,400 | 4,240 | 70 |
| 450,000 - 499,999 | 51 | 90 | 13,500 | 5,540 | 79 |
| 500,000 - 599,999 | 64 | 113 | 14,300 | 10,210 | 123 |
| 600,000 and Over | 28 | 131 | 14,400 | 15,770 | 168 |

## Capital Efficiency

The average end-of-year inventory on the 605 farms was $248,209. This includes both owned and borrowed capital for all farms. About one-third was borrowed. The use of credit is part of capital management. Since capital is a key input item, it is important to analyze the use of capital in the business. The analysis in this section examines how efficiently the capital was used.

Table 25. MEASURES OF CAPITAL EFFICIENCY
605 New York Dairy Farms, 1975

| Measure | | Average 605 Farms | Average Top 10% Farms |
|---|---|---|---|
| Total capital per man | $_____ | $102,570 | $114,360 |
| Total capital per cow | $_____ | $3,450 | $3,240 |
| Machinery & equipment per cow | $_____ | $620 | $590 |
| Land & building investment per cow | $_____ | $1,830 | $1,550 |
| Land & building investment/crop acre owned | $_____ | $930 | $800 |
| Total capital per cwt. milk sold | $_____ | $26 | $23 |
| Capital turnover (capital ÷ receipts) | _____ | 2.6 | 2.2 |

Capital efficiency is often associated with size of herd. For this reason, the 605 farms were sorted on the basis of number of cows and the capital efficiency measures were calculated. There seemed to be a relationship between size and capital efficiency for the three items - machinery, real estate, and total capital. The farms with over 150 cows did have considerably lower investments per cow.

Table 26. SIZE OF HERD AND CAPITAL EFFICIENCY
605 New York Dairy Farms, 1975

| Number of Cows | Number of Farms | Capital Investment Per Cow | | |
|---|---|---|---|---|
| | | Total | Real Estate | Machinery |
| Under 40 | 88 | $3,980 | $2,340 | $730 |
| 40 - 54 | 161 | 3,640 | 1,970 | 700 |
| 55 - 69 | 128 | 3,520 | 1,860 | 670 |
| 70 - 84 | 70 | 3,600 | 1,990 | 610 |
| 85 - 99 | 43 | 3,230 | 1,690 | 580 |
| 100 - 114 | 31 | 3,400 | 1,740 | 590 |
| 115 - 129 | 25 | 3,430 | 1,720 | 640 |
| 130 - 149 | 19 | 3,300 | 1,630 | 600 |
| 150 & Over | 40 | 3,030 | 1,550 | 470 |

## Cost Control

Cost control is a big factor in the success of modern dairy operations. Feed, machinery, labor, and capital costs are major items and are examined in detail. In times of rising costs, it is especially important to check all items both large and small. Profitable businesses usually maintain a "tight" control on all costs.

## Feed Costs

Feed is the largest single expense item on most New York dairy farms. For the 605 farms in 1975, dairy concentrate accounted for 32 percent of the cash operating expenses so feed is the first item examined.

Dairy feed costs are affected by many things. In 1975, feed prices were at near record highs. There is no satisfactory single measure of feed cost control so the feed situation is examined in the business analysis of feed costs. Below are some measures related to feed costs on a dairy farm.

Table 27. ITEMS RELATED TO FEED COSTS
605 New York Dairy Farms, 1975

| Item | My Farm | Average 605 Farms | Average Top 10% Farms |
|---|---|---|---|
| Feed bought per cow | $_____ | $312 | $298 |
| Crop expense per cow | $_____ | $102 | $120 |
| Feed bought per cwt. milk | $_____ | $2.39 | $2.10 |
| Feed & crop expense per cwt. milk | $_____ | $3.18 | $2.95 |
| % Feed is of milk sales | _____% | 28% | 24% |
| Hay equivalent per cow | _____ T. | 8.2 T. | 9.1 T. |
| Crop acres per cow | _____ | 3.0 | 3.0 |
| Fertilizer & lime per crop acre | $_____ | $21 | $26 |
| Heifers as % of cow numbers | _____% | 75% | 79% |

The average cost of feed bought per cow in 1975 was $312 while in 1974 it was $318. Likewise, the percent that feed bought is of milk sales was 28 percent in 1975 and 30 percent in 1974.

The crop situation in 1975 was good. Tons of hay equivalent produced per cow was 8.2 tons compared with 8.0 in 1974.

Feed costs include all feed for cows and heifers. Per cow costs are influenced markedly by the number of replacements on hand. Heifers as % of cow numbers must be considered when evaluating most of the per cow factors.

The 10 percent of farms with highest labor and management incomes spent more for crops, had more roughage per cow, and spent less for feed bought than the 605 farm average. The top income farms also had lower costs per cwt. milk sold.

Feed cost is influenced by a number of factors. On the production side, it is affected by the amount of homegrown grains, quality and quantity of the roughage, and the number of youngstock. On the purchasing side, it is influenced by the farmer's ability to purchase concentrates at reasonable prices.

Feed bought per cow is calculated by dividing the total expense for dairy concentrate by the average number of cows. Because this also includes the amount spent for calf and heifer feed, it actually represents the feed cost per cow and the replacements being raised.

Crop expense per cow is the total spent for fertilizer and lime, seeds and plants, spray, and other crop expense divided by the average number of cows. This represents the direct cash costs for growing feed.

Feed purchased as percent of milk receipts is calculated by dividing feed purchased by milk receipts. This measure can be used to determine whether the feed costs are in line. The amount of homegrown grain must be considered as you evaluate this measure. Milk prices also influence this factor.

Hay equivalent per cow is calculated by converting all hay crop silage, green chop, and corn silage to a dry hay equivalent and adding it to the tons of dry hay harvested. Total tons of hay equivalent is divided by the average number of cows.

Crop acres per cow is the total acres of cropland harvested divided by the average number of cows.

Heifers as percent of cow numbers is figured by dividing the number of heifers by the number of cows and multiplying by 100.

Table 28. PERCENT PURCHASED FEED IS OF MILK RECEIPTS AND LABOR AND MANAGEMENT INCOME
605 New York Dairy Farms, 1975

| % Feed is of Milk | Number of Farms | Number of Cows | H.E. Per Cow | Lbs. Milk Per Cow | Labor and Management Income Per Operator |
|---|---|---|---|---|---|
| Over 40% | 45 | 64 | 6.9 | 12,400 | $-2,000 |
| 35 - 39 | 93 | 72 | 7.6 | 12,800 | 1,900 |
| 30 - 34 | 130 | 72 | 7.7 | 12,900 | 2,100 |
| 25 - 29 | 140 | 70 | 8.0 | 12,500 | 4,200 |
| 20 - 24 | 93 | 77 | 8.2 | 12,400 | 3,800 |
| Under 20% | 104 | 79 | 8.7 | 12,500 | 7,000 |

In general, the lower the percent of the milk check going for purchased feed the higher the income (table 28). Farms with a lower percent of the milk check going for purchased feed had more tons of hay equivalent per cow.

## Machinery Costs

Machinery accounted for 18 percent of the farm inventory on these 605 farms, and the new purchases in 1975 averaged about $8,200 per farm. The cost of owning and operating this machinery accounted for one-sixth of the total farm expenses. An examination of the machinery costs is a key part of a systematic analysis of a dairy farm business.

Table 29. MACHINERY COST
605 New York Dairy Farms, 1975

| Item | My Farm | Average 605 Farms Amount | Average 605 Farms Percent | Average Top 10% Farms |
|---|---|---|---|---|
| Depreciation (from p. 7) | $_____ | $ 5,066 | 32 | $ 6,104 |
| Interest @ 7% on av. inventory | _____ | 3,005 | 19 | 4,347 |
| Machine hire | _____ | 693 | 4 | 973 |
| Machinery repairs | _____ | 4,079 | 26 | 6,634 |
| Auto expense (farm share) | _____ | 315 | 2 | 343 |
| Gas and oil | _____ | 2,735 | 17 | 3,966 |
| Total Machinery Costs | $_____ | $15,893 | 100 | $22,367 |
| Machinery cost: | | | | |
| per cow | $_____ | $221 | | $200 |
| per cwt. milk sold | $_____ | $1.69 | | $1.41 |

The machinery depreciation calculations were shown on page 7. Depreciation accounted for 32 percent of the total machinery costs and interest 19 percent. These two fixed cost items are often overlooked in a casual look at operating costs. Repairs were the second largest cost item and one which must be kept in line if costs are to be kept under control.

Machinery costs averaged $221 per cow but 5 farms had costs of under $100 while 67 had costs of $300 and over. In general, the lower the machinery costs per cow the higher the labor and management income per operator.

Table 30. MACHINERY COST PER COW AND LABOR AND MANAGEMENT INCOME
605 New York Dairy Farms, 1975

| Machinery Cost Per Cow | Number of Farms | Percent of Farms | Labor and Management Income Per Operator |
|---|---|---|---|
| Under $100 | 5 | 1 | $3,820 |
| $100 - 149 | 58 | 10 | 6,070 |
| 150 - 199 | 192 | 32 | 4,910 |
| 200 - 249 | 177 | 29 | 3,490 |
| 250 - 299 | 106 | 17 | 2,350 |
| 300 & Over | 67 | 11 | -2,300 |

## Labor Costs

Labor costs are sometimes overlooked in a farm business analysis. This is understandable since the farm family often provides a large part of the labor input. On these 605 farms, the family (including paid family labor) provided 69 percent of the months of labor inputs while hired nonfamily labor provided 31 percent (page 6). Family labor does have a value and in this section an analysis is made of the cost of all labor inputs.

Table 31. LABOR COSTS
605 New York Dairy Farms, 1975

| Item | My Farm | Average 605 Farms Amount | Average 605 Farms Percent | Average Top 10% Farms |
|---|---|---|---|---|
| Value operator's labor @ $500/month | $_____ | $ 7,000 | 47 | $ 7,500 |
| Hired labor expense (from p. 10) (includes paid family labor) | _____ | 6,923 | 46 | 13,903 |
| Unpaid family labor @ $350/month | _____ | 1,050 | 7 | 700 |
| Total Labor Costs | $_____ | $14,973 | 100 | $22,103 |
| Labor cost per cow | $_____ | $208 | | $197 |
| Labor cost per cwt. milk | $_____ | $1.60 | | $1.39 |
| Cost per month hired labor | $_____ | $577 | | $662 |
| Cost per month all labor | $_____ | $516 | | $582 |

The operator's labor was valued at $500 per month. Unpaid family labor was valued at $350 per month which is relatively low, but this is usually children or wives who would find it difficult to earn more than this amount off the farm with the hours they have available for work.

Labor and machinery operate as a "team" on a modern farm. The challenge is to get a combination that will give a reasonable cost per unit of milk sold.

Table 32. LABOR AND MACHINERY COSTS
605 New York Dairy Farms, 1975

| Item | My Farm | Av. 605 Farms | Av. Top 10% Farms |
|---|---|---|---|
| Total labor cost | $_____ | $14,973 | $22,103 |
| Total machinery cost | _____ | 15,893 | 22,367 |
| Total Labor and Machinery Costs | $_____ | $30,866 | $44,470 |
| Labor and machinery cost per cow | $_____ | $429 | $397 |
| Labor and machinery cost/cwt. milk | $_____ | $3.29 | $2.80 |

Combination of Factors

Individual factors have been examined in the analysis up to this point. It has been suggested that these factors are interrelated. In this section, the combination of four important factors is studied. The factors used here are size, rates of production, labor efficiency, and cost control as measured by number of cows, pounds of milk sold per cow, pounds of milk sold per man, and percent purchased feed was of milk receipts.

For each factor, the farms were divided on the basis of whether they were above or below the average for the 605 farms. They were then grouped on the basis of the number of factors better than average. The combination of factors above or below average within the three middle groups varied.

Table 33. COMBINATION OF FACTORS ABOVE AVERAGE* AND LABOR AND MANAGEMENT INCOME 605 New York Dairy Farms, 1975

| Number of Factors Above Average | Number of Farms | Percent of Farms | Labor and Management Income Per Operator |
|---|---|---|---|
| 4 Factors better than average | 62 | 10% | $11,900 |
| 3 Factors better than average | 124 | 21 | 7,200 |
| 2 Factors better than average | 160 | 26 | 3,600 |
| 1 Factor better than average | 164 | 27 | -600 |
| 0 Factors better than average | 95 | 16 | -800 |

* Factors were:
Size - number of cows - average 72.
Rates of production - pounds of milk sold per cow - average 13,000.
Labor efficiency - pounds of milk sold per man - average 387,900.
Cost control - percent purchased feed was of milk receipts - average 28%.

The relationship between the number of factors better than average and labor income is shown in table 33. As the number of factors better than average decreased, labor incomes decreased at a rapid rate. It is important in managing a farm business to give attention to all major factors affecting the business. Concentrating on only one or two factors and neglecting the others will not give the kind of net return most farmers want.

Farm Business Chart

The Farm Business Chart is a tool which can be used in analyzing a business to determine the strong and weak points. The figure at the top of each column is the average of the top 10 percent of the 605 farms for that factor. The other figures in each column are the average for the second 10 percent, third 10 percent, etc. Each column of the chart is independent of the others. The farms which are in the top 10 percent for one factor would not necessarily be the same farms which make up the top 10 percent for any other factor.

FARM BUSINESS CHART FOR FARM MANAGEMENT COOPERATORS
605 New York Dairy Farms, 1975

| Size of Business | | | Rates of Production | | | Labor Efficiency | |
|---|---|---|---|---|---|---|---|
| Man Equiv-alent | No. of Cows | Pounds Milk Sold | Pounds Milk Sold Per Cow | Tons Hay Crops Per Acre | Tons Corn Silage Per Acre | Cows Per Man | Pounds Milk Sold Per Man |
| 5.0 | 173 | 2,362,600 | 16,100 | 4.8 | 21 | 45 | 605,800 |
| 3.4 | 110 | 1,509,800 | 14,800 | 3.7 | 18 | 38 | 501,300 |
| 2.9 | 86 | 1,131,300 | 14,100 | 3.2 | 16 | 34 | 445,600 |
| 2.5 | 72 | 918,300 | 13,600 | 2.9 | 15 | 32 | 410,800 |
| 2.3 | 63 | 794,500 | 13,000 | 2.7 | 14 | 30 | 375,900 |
| 2.1 | 57 | 704,800 | 12,500 | 2.4 | 13 | 28 | 347,000 |
| 1.9 | 50 | 623,600 | 11,900 | 2.2 | 12 | 26 | 321,100 |
| 1.6 | 45 | 537,700 | 11,300 | 2.0 | 11 | 24 | 285,900 |
| 1.4 | 39 | 442,300 | 10,300 | 1.6 | 9 | 21 | 242,800 |
| 1.2 | 29 | 310,000 | 8,400 | 1.2 | 6 | 17 | 176,000 |

| Feed Bought | | Machinery Cost | Labor and Machinery | Feed and Crop Expense Per |
|---|---|---|---|---|
| Per Cow | % of Milk Receipts | Per Cow | Cost Per Cow | Cwt. Milk |
| $128 | 13% | $123 | $297 | $1.99 |
| 192 | 19 | 159 | 342 | 2.44 |
| 233 | 23 | 177 | 364 | 2.72 |
| 266 | 25 | 191 | 389 | 2.93 |
| 291 | 27 | 205 | 414 | 3.10 |
| 318 | 30 | 221 | 442 | 3.23 |
| 349 | 32 | 238 | 468 | 3.39 |
| 380 | 34 | 259 | 495 | 3.59 |
| 417 | 36 | 289 | 536 | 3.84 |
| 497 | 43 | 355 | 636 | 4.40 |

The cost control factors are ranked from low to high, but the lowest cost is not necessarily the most profitable. Many things affect the level of costs, and these items must be taken into account when analyzing the factors.

This chart can be used to analyze a dairy business by drawing a line through the figure in each column which represents the level of management for this farm.

## SUPPLEMENTAL INFORMATION

### Cost of Producing Milk

The cost of producing milk can be calculated from the farm business summary when the operations have dairy as the only principal enterprise. The average cost per hundredweight of producing milk in 1975 on the 605 farms and comparisons with earlier years is shown on page 29.

### Comparison by Herd Size

In making an analysis of an individual farm business, it is helpful to compare it with businesses of similar size. On pages 30 to 35, the business summary, business factors, and financial situation for the 605 farms are shown for nine herd size groups. These data also can be used to study the effect of size on the many aspects of dairy farm businesses.

### Farms With Free Stall Barns

There has been much interest in free stall barns in recent years. In the 1975 Summary, a total of 205 reported free stall facilities and were included in a special analysis which is reported on page 36.

### Milking Systems

New types of milking systems have been introduced on many dairy farms in the past decade. The 1975 cooperators reported the kind of milking system in use on their farm. The 605 farms have been sorted by type of milking system and selected business factors for them are reported on page 37.

### Type of Business Organization

Three types of business organization were included in the 605 farms. Summaries were prepared for: individual operators; partnerships; and corporations. The three summaries are compared on pages 38 and 39.

### Same Farms for 1974 and 1975

There is some turnover each year in the cooperators in the business management projects. Of the 605 farms in 1975, 436 had been in the 1974 summary. A comparison of the 1974 and 1975 businesses of the same 436 farms is reported on pages 40 and 41.

### Trends

A manager must keep abreast of current trends if he is to keep his business in tune with the times. Trends can be observed in different ways. One way is to compare similar business studies that have been made. On page 42, selected farm business summary factors are given for 1965, 1970, 1974 and 1975.

### Operating Statements

In establishing goals, it is helpful to know what the "better" businesses do. For this purpose, an operating statement for the 10 percent of the farms with the highest labor incomes is on page 45.

Operating statements are included for two groups who participated in the farm business management projects but were not in the 605 farm analysis. These are the farms that had crop sales which were equal to 10 percent or more of the milk receipts and were classified as "dairy-cash crop" operations. The other group is the "renter" operators. See pages 43 and 44.

## Cost of Producing Milk

The "farm unit" method is used here to compute cost of producing milk. Farm expenses include all costs except the operator's labor and management. Non-milk receipts are deducted on the assumption they were produced at cost.

Table 34. FARM COST OF PRODUCING MILK
605 New York Dairy Farms, 1975

| Item | My Farm | Average 605 Farms | |
|---|---|---|---|
| Total cash farm expenses (p. 10) | $_____ | $69,588 | |
| Machinery depreciation | _____ | 5,066 | |
| Building depreciation | _____ | 2,363 | |
| Unpaid labor | _____ | 1,050 | |
| Interest on equity capital @ 7% | _____ | 11,949 | |
| TOTAL FARM EXPENSES | $_____ | $90,016 | |
| Value Operator's Labor @ $500/mo. | _____ | 7,000 | |
| TOTAL COST OF PRODUCTION (1) | $_____ | | $97,016 |
| Total cash farm receipts (p. 8) | $_____ | $89,473 | |
| Less: Milk sales | _____ | 81,206 | |
| Non-milk cash receipts | _____ | $ 8,267 | |
| Increase feed & supplies | _____ | 2,215 | |
| Increase of 2 cows @ $700 | _____ | 1,400 | |
| TOTAL OTHER INCOME (2) | _____ | | 11,882 |
| COST OF PRODUCING MILK (minus 2) | $_____ | | $85,134 |
| Hundredweights of milk sold (p. 17) | _____ | 9,386 | |
| COST OF PRODUCING CWT. MILK | $_____ | | $9.07 |
| Management charge @ 5% cash receipts | $_____ | $4,474 | |
| Management charge cwt. milk | _____ | 48¢ | |
| COST OF PRODUCING MILK WITH MGT. CHARGE | $_____ | | $9.55 |

Changes in cattle prices can cause a change in livestock inventories even though there are no changes in cattle numbers. To correct for this, the dollar change in livestock inventory is omitted and the change in cow numbers (increase of 2 cows) is valued at the average year-end livestock inventory value per cow (includes replacement heifers) and included as non-cash income. For 1975, the increase in value of the 2 additional cows was $1,400, while the increase in livestock inventories was $2,820.

Table 35. COST OF PRODUCING MILK AND PRICES RECEIVED, 1970-1975

| Year | Value Operator's Labor | Value Operator's Management* | Cost/Cwt. With Management Excluded | Cost/Cwt. With Management Included | Average Price Received | Average Price Reported** |
|---|---|---|---|---|---|---|
| 1970 | $5,400 | $2,853 | $5.73 | $6.08 | $6.10 | $5.89 |
| 1971 | 5,400 | 3,037 | 5.84 | 6.19 | 6.21 | 6.02 |
| 1972 | 6,000 | 3,275 | 6.43 | 6.80 | 6.41 | 6.25 |
| 1973 | 6,000 | 3,689 | 7.26 | 7.69 | 7.30 | 7.30 |
| 1974 | 6,000 | 4,330 | 8.34 | 8.82 | 8.57 | 8.24 |
| 1975 | 6,000 | 4,474 | 9.07 | 9.55 | 8.65 | 8.66 |

* Estimated @ 5% of cash receipts.
** New York-New Jersey Milk Marketing Area.

Table 36. FARM BUSINESS SUMMARY BY HERD SIZE
605 New York Dairy Farms, 1975

| Item | Farms With: Less Than 40 Cows | 40 to 54 Cows | 55 to 69 Cows | 70 to 84 Cows |
|---|---|---|---|---|
| Capital Investment (end of year) | | | | |
| Livestock | $ 21,274 | $ 33,694 | $ 43,746 | $ 53,472 |
| Feed and supplies | 7,194 | 10,754 | 16,803 | 21,341 |
| Machinery and equipment | 22,571 | 32,409 | 40,750 | 45,745 |
| Land and buildings | 72,394 | 90,634 | 113,546 | 149,533 |
| TOTAL INVESTMENT | $123,433 | $167,491 | $214,845 | $270,091 |
| Receipts | | | | |
| Milk sales | $ 31,880 | $ 50,068 | $ 65,468 | $ 82,597 |
| Dairy cattle sold | 2,102 | 3,022 | 3,901 | 4,858 |
| Other livestock sales | 510 | 621 | 1,025 | 854 |
| Crop sales | 291 | 527 | 720 | 719 |
| Miscellaneous receipts | 927 | 1,061 | 1,249 | 1,329 |
| Total Cash Receipts | $ 35,710 | $ 55,299 | $ 72,363 | $ 90,357 |
| Increase in livestock | 867 | 1,852 | 2,238 | 2,047 |
| Increase in feed & supplies | 594 | 1,217 | 2,127 | 2,200 |
| TOTAL FARM RECEIPTS | $ 37,171 | $ 58,368 | $ 76,728 | $ 94,604 |
| Expenses | | | | |
| Hired labor | $ 1,182 | $ 2,240 | $ 4,463 | $ 6,563 |
| Dairy feed | 9,500 | 14,162 | 18,194 | 23,488 |
| Other feed | 462 | 745 | 599 | 973 |
| Machine hire | 235 | 318 | 612 | 778 |
| Machinery repair | 1,369 | 2,255 | 3,223 | 3,970 |
| Auto expense (farm share) | 223 | 297 | 284 | 396 |
| Gas and oil | 1,247 | 1,714 | 2,287 | 2,862 |
| Purchased animals | 861 | 1,478 | 1,508 | 2,654 |
| Breeding fees | 421 | 630 | 758 | 1,003 |
| Veterinary and medicine | 474 | 829 | 950 | 1,365 |
| Milk marketing | 700 | 1,198 | 1,373 | 1,814 |
| Other livestock expense | 1,203 | 1,902 | 2,433 | 2,927 |
| Fertilizer and lime | 1,286 | 2,485 | 3,696 | 4,814 |
| Seeds and plants | 476 | 992 | 1,192 | 1,352 |
| Spray and other crop expense | 454 | 692 | 934 | 1,311 |
| Land, bldg., fence repair | 721 | 1,067 | 1,304 | 1,088 |
| Taxes and insurance | 1,753 | 2,292 | 2,860 | 3,757 |
| Electric & phone (farm share) | 870 | 1,186 | 1,519 | 1,844 |
| Interest paid | 2,207 | 3,988 | 5,279 | 7,317 |
| Miscellaneous expenses | 700 | 1,169 | 1,541 | 1,319 |
| Total Cash Expenses | $ 26,344 | $ 41,639 | $ 55,009 | $ 72,625 |
| Machinery depreciation | 2,142 | 3,570 | 4,753 | 5,785 |
| Building depreciation | 908 | 1,494 | 1,967 | 2,105 |
| Unpaid family labor | 1,050 | 1,050 | 1,400 | 1,050 |
| Interest on equity @ 7% | 6,444 | 8,081 | 9,910 | 12,256 |
| Decrease in livestock | -- | -- | -- | -- |
| TOTAL FARM EXPENSES | $ 36,888 | $ 55,834 | $ 73,039 | $ 93,821 |
| Financial Summary | | | | |
| Total Farm Receipts | $ 37,171 | $ 58,368 | $ 76,728 | $ 94,604 |
| Total Farm Expenses | 36,888 | 55,834 | 73,039 | 93,821 |
| Labor & Mgt. Income | $ 283 | $ 2,534 | $ 3,689 | $ 783 |
| Number of operators | 1.02 | 1.11 | 1.16 | 1.40 |
| LABOR & MGT. INCOME/OPERATOR | $ 277 | $ 2,293 | $ 3,191 | $ 559 |

Table 36. contd. FARM BUSINESS SUMMARY BY HERD SIZE
605 New York Dairy Farms, 1975

| Item | Farms With: 85 to 99 Cows | 100 to 114 Cows | 115 to 129 Cows | 130 to 149 Cows | 150 or More Cows |
|---|---|---|---|---|---|
| Capital Investment (end of year) | | | | | |
| Livestock | $ 62,813 | $ 78,489 | $ 89,955 | $103,542 | $134,131 |
| Feed and supplies | 24,860 | 35,246 | 37,769 | 46,139 | 59,292 |
| Machinery and equipment | 52,339 | 61,976 | 76,231 | 82,973 | 90,198 |
| Land and buildings | 153,759 | 184,241 | 207,014 | 225,989 | 295,192 |
| TOTAL INVESTMENT | $293,771 | $359,952 | $410,969 | $458,643 | $578,813 |
| Receipts | | | | | |
| Milk sales | $101,871 | $126,780 | $141,434 | $169,514 | $225,860 |
| Dairy cattle sold | 6,509 | 8,811 | 6,900 | 8,747 | 11,403 |
| Other livestock sales | 1,005 | 1,104 | 2,078 | 1,235 | 2,547 |
| Crop sales | 1,128 | 1,569 | 1,509 | 1,434 | 3,028 |
| Miscellaneous receipts | 1,717 | 2,971 | 3,422 | 2,842 | 5,131 |
| Total Cash Receipts | $112,230 | $141,235 | $155,343 | $183,772 | $247,969 |
| Increase in livestock | 2,613 | 3,379 | 5,196 | 6,062 | 10,987 |
| Increase in feed & supplies | 3,523 | 2,680 | 6,054 | 7,557 | 3,407 |
| TOTAL FARM RECEIPTS | $118,366 | $147,294 | $166,593 | $197,391 | $262,363 |
| Expenses | | | | | |
| Hired labor | $ 8,856 | $ 13,201 | $ 14,833 | $ 16,747 | $ 30,347 |
| Dairy feed | 27,716 | 34,131 | 39,753 | 44,914 | 60,060 |
| Other feed | 1,939 | 1,365 | 1,059 | 1,397 | 4,248 |
| Machine hire | 898 | 658 | 1,387 | 1,093 | 2,500 |
| Machinery repair | 5,254 | 6,632 | 7,506 | 10,267 | 11,997 |
| Auto expense (farm share) | 463 | 305 | 413 | 478 | 254 |
| Gas and oil | 3,321 | 4,358 | 4,379 | 5,854 | 6,940 |
| Purchased animals | 3,570 | 2,401 | 2,939 | 2,862 | 6,256 |
| Breeding fees | 1,450 | 1,678 | 1,564 | 2,341 | 2,355 |
| Veterinary and medicine | 1,647 | 2,088 | 2,381 | 3,275 | 3,496 |
| Milk marketing | 1,677 | 2,185 | 2,811 | 4,133 | 6,396 |
| Other livestock expense | 2,986 | 4,582 | 4,178 | 4,630 | 6,289 |
| Fertilizer and lime | 6,060 | 7,683 | 7,730 | 10,887 | 14,133 |
| Seeds and plants | 2,079 | 2,461 | 2,238 | 3,459 | 4,035 |
| Spray and other crop expense | 1,835 | 2,120 | 1,769 | 2,602 | 4,084 |
| Land, bldg., fence repair | 1,298 | 2,318 | 2,132 | 3,128 | 3,661 |
| Taxes and insurance | 4,613 | 5,225 | 6,472 | 5,774 | 7,268 |
| Electric & phone (farm share) | 2,041 | 2,556 | 2,755 | 2,792 | 3,765 |
| Interest paid | 6,900 | 9,380 | 9,894 | 12,099 | 16,484 |
| Miscellaneous expenses | 2,781 | 4,907 | 3,530 | 5,545 | 6,565 |
| Total Cash Expenses | $ 87,384 | $110,234 | $119,723 | $144,277 | $201,133 |
| Machinery depreciation | 6,970 | 7,740 | 7,826 | 7,636 | 10,203 |
| Building depreciation | 2,727 | 3,818 | 4,093 | 4,253 | 7,280 |
| Unpaid family labor | 1,050 | 700 | 1,050 | 700 | 700 |
| Interest on equity @ 7% | 14,743 | 17,530 | 20,753 | 22,263 | 27,876 |
| Decrease in livestock | -- | -- | -- | -- | -- |
| TOTAL FARM EXPENSES | $112,874 | $140,022 | $153,445 | $179,129 | $247,192 |
| Financial Summary | | | | | |
| Total Farm Receipts | $118,366 | $147,294 | $166,593 | $197,391 | $262,363 |
| Total Farm Expenses | 112,874 | 140,022 | 153,445 | 179,129 | 247,192 |
| Labor & Mgt. Income | $ 5,492 | $ 7,272 | $ 13,148 | $ 18,262 | $ 15,171 |
| Number of operators | 1.37 | 1.26 | 1.44 | 1.53 | 1.42 |
| LABOR & MGT. INCOME/OPERATOR | $ 4,003 | $ 5,781 | $ 9,131 | $ 11,967 | $ 10,646 |

Table 37. SELECTED BUSINESS FACTORS BY HERD SIZE
605 New York Dairy Farms, 1975

| Item | Farms with: Less Than 40 Cows | 40 to 54 Cows | 55 to 69 Cows | 70 to 84 Cows |
|---|---|---|---|---|
| Number of farms | 88 | 161 | 128 | 70 |
| Size of Business | | | | |
| Number of cows | 31 | 46 | 61 | 75 |
| Number of heifers | 21 | 34 | 47 | 55 |
| Pounds of milk sold | 373,400 | 587,400 | 765,300 | 948,800 |
| Man equivalent | 1.5 | 1.8 | 2.3 | 2.7 |
| Total work units | 358 | 516 | 685 | 834 |
| Crop acres | 108 | 145 | 190 | 225 |
| Rates of Production | | | | |
| Milk sold per cow | 12,000 | 12,800 | 12,600 | 12,600 |
| Tons hay crops per acre | 2.1 | 2.3 | 2.5 | 2.7 |
| Tons corn silage per acre | 12.9 | 13.2 | 14.0 | 14.3 |
| Bushels of oats per acre | 58 | 56 | 52 | 50 |
| Labor Efficiency | | | | |
| Cows per man | 21 | 26 | 27 | 28 |
| Pounds milk sold per man | 248,900 | 335,700 | 340,100 | 355,400 |
| Work units per man | 239 | 295 | 304 | 312 |
| Feed Costs | | | | |
| Feed purchased per cow | $306 | $308 | $298 | $313 |
| Crop expense per cow | $71 | $91 | $95 | $100 |
| Feed cost per cwt. milk | $2.54 | $2.41 | $2.38 | $2.48 |
| Feed & crop exp./cwt. milk | $3.14 | $3.12 | $3.14 | $3.26 |
| % Feed is of milk receipts | 30% | 28% | 28% | 28% |
| Hay equivalent per cow | 7.4 | 7.9 | 8.2 | 8.6 |
| Crop acres per cow | 3.5 | 3.2 | 3.1 | 3.0 |
| Fertilizer & lime/crop acre | $12 | $17 | $19 | $21 |
| Machinery and Labor Costs | | | | |
| Total machinery costs | $6,757 | $10,377 | $13,933 | $16,919 |
| Machinery cost per cow | $218 | $226 | $228 | $226 |
| Machinery cost/cwt. milk | $1.81 | $1.77 | $1.82 | $1.78 |
| Labor cost per cow | $266 | $213 | $211 | $215 |
| Labor cost per cwt. milk | $2.20 | $1.67 | $1.68 | $1.70 |
| Capital Efficiency | | | | |
| Investment per man | $82,289 | $95,709 | $95,487 | $101,158 |
| Investment per cow | $3,982 | $3,641 | $3,522 | $3,601 |
| Investment per cwt. milk | $33 | $29 | $28 | $28 |
| Land & buildings per cow | $2,335 | $1,970 | $1,861 | $1,994 |
| Machinery investment/cow | $728 | $705 | $668 | $610 |
| Capital turnover | 3.3 | 2.9 | 2.8 | 2.9 |
| Other | | | | |
| Price per cwt. milk sold | $8.54 | $8.52 | $8.55 | $8.71 |
| Acres hay crops | 79 | 91 | 112 | 122 |
| Acres corn silage | 16 | 34 | 48 | 66 |
| Inventory changes 1975*: | | | | |
| Number of cows | 0 | +1 | 0 | +1 |
| Inv. value per cow** | +$27 | +$25 | +$37 | +$18 |

* Change from 1/1/75 to 1/1/76.
** Livestock inventory includes heifers.

Table 37. contd.

SELECTED BUSINESS FACTORS BY HERD SIZE
605 New York Dairy Farms, 1975

| Item | Farms With: 85 to 99 Cows | 100 to 114 Cows | 115 to 129 Cows | 130 to 149 Cows | 150 or More Cows |
|---|---|---|---|---|---|
| Number of farms | 43 | 31 | 25 | 19 | 40 |
| Size of Business | | | | | |
| Number of cows | 91 | 106 | 120 | 139 | 191 |
| Number of heifers | 69 | 85 | 88 | 102 | 138 |
| Pounds of milk sold | 1,190,100 | 1,445,700 | 1,627,100 | 1,922,100 | 2,572,300 |
| Man equivalent | 2.9 | 3.3 | 3.6 | 3.8 | 5.2 |
| Total work units | 1,003 | 1,186 | 1,323 | 1,529 | 2,070 |
| Crop acres | 260 | 334 | 339 | 412 | 511 |
| Rates of Production | | | | | |
| Milk sold per cow | 13,100 | 13,600 | 13,600 | 13,800 | 13,500 |
| Tons hay crops per acre | 2.8 | 3.1 | 2.9 | 2.9 | 3.2 |
| Tons corn silage/acre | 14.0 | 14.9 | 13.2 | 15.6 | 14.4 |
| Bushels oats/acre | 63 | 58 | 64 | 46 | 72 |
| Labor Efficiency | | | | | |
| Cows per man | 31 | 33 | 34 | 36 | 37 |
| Pounds milk sold/man | 407,600 | 444,800 | 454,500 | 501,800 | 497,500 |
| Work units per man | 343 | 365 | 370 | 399 | 400 |
| Feed Costs | | | | | |
| Feed purchased per cow | $305 | $322 | $331 | $323 | $314 |
| Crop expense per cow | $110 | $116 | $98 | $122 | $117 |
| Feed cost per cwt. milk | $2.33 | $2.36 | $2.44 | $2.34 | $2.33 |
| Feed & crop exp./cwt. milk | $3.17 | $3.21 | $3.16 | $3.22 | $3.20 |
| % Feed is of milk receipts | 27% | 27% | 28% | 26% | 27% |
| Hay equivalent per cow | 7.5 | 8.8 | 8.3 | 8.7 | 8.3 |
| Crop acres per cow | 2.9 | 3.2 | 2.8 | 3.0 | 2.7 |
| Fertilizer & lime/crop acre | $23 | $23 | $23 | $26 | $28 |
| Machinery and Labor Costs | | | | | |
| Total machinery costs | $20,407 | $23,943 | $26,608 | $30,670 | $37,880 |
| Machinery cost per cow | $224 | $226 | $222 | $221 | $198 |
| Machinery cost/cwt. milk | $1.71 | $1.66 | $1.64 | $1.60 | $1.47 |
| Labor cost per cow | $197 | $202 | $203 | $190 | $207 |
| Labor cost/cwt. milk | $1.50 | $1.48 | $1.50 | $1.38 | $1.54 |
| Capital Efficiency | | | | | |
| Investment per man | $100,607 | $110,754 | $114,796 | $119,750 | $111,956 |
| Investment per cow | $3,228 | $3,396 | $3,425 | $3,300 | $3,030 |
| Investment/cwt. milk | $25 | $25 | $25 | $24 | $22 |
| Land & buildings/cow | $1,690 | $1,738 | $1,725 | $1,626 | $1,546 |
| Machinery investment/cow | $575 | $585 | $635 | $597 | $472 |
| Capital turnover | 2.5 | 2.4 | 2.5 | 2.3 | 2.2 |
| Other | | | | | |
| Price per cwt. milk sold | $8.56 | $8.77 | $8.69 | $8.82 | $8.78 |
| Acres hay crops | 128 | 164 | 174 | 217 | 225 |
| Acres corn silage | 71 | 84 | 111 | 111 | 181 |
| Inventory changes 1975*: | | | | | |
| Number of cows | +2 | 0 | +2 | +3 | +9 |
| Inv. value per cow** | +$13 | +$31 | +$31 | +$28 | +$25 |

* Change from 1/1/75 to 1/1/76
** Livestock inventory includes heifers.

Table 38. FARM FAMILY FINANCIAL SITUATION BY HERD SIZE
590* New York Dairy Farms, January 1, 1976

| Item | Farms With: Less than 40 Cows | 40 to 54 Cows | 55 to 69 Cows | 70 to 84 Cows |
|---|---|---|---|---|
| Number of farms | 87 | 157 | 123 | 69 |
| **Assets** | | | | |
| Livestock | $ 21,230 | $ 33,766 | $ 43,516 | $ 53,592 |
| Feed and supplies | 7,168 | 10,786 | 16,800 | 21,305 |
| Machinery & equipment | 22,437 | 32,425 | 41,003 | 45,509 |
| Land and buildings | 72,818 | 91,034 | 113,919 | 149,719 |
| Co-op investment | 1,974 | 1,672 | 2,825 | 4,212 |
| Accounts receivable | 2,115 | 3,354 | 5,074 | 9,684 |
| Cash & checking accounts | 1,075 | 1,164 | 1,789 | 2,690 |
| Total Farm Assets | $128,817 | $174,201 | $224,926 | $286,711 |
| Savings accounts | 1,699 | 2,615 | 3,467 | 3,342 |
| Cash value life insurance | 2,439 | 2,504 | 2,996 | 2,818 |
| Stocks and bonds | 1,964 | 1,625 | 1,555 | 357 |
| Nonfarm real estate | 1,842 | 1,159 | 1,947 | 3,191 |
| Auto (personal share) | 678 | 616 | 761 | 866 |
| All other | 1,162 | 1,716 | 1,884 | 1,937 |
| Total Nonfarm Assets | $ 9,784 | $ 10,235 | $ 12,610 | $ 12,511 |
| TOTAL ASSETS | $138,601 | $184,436 | $237,536 | $299,222 |
| **Liabilities** | | | | |
| Real estate mortgage | $ 21,347 | $ 35,037 | $ 45,815 | $ 63,667 |
| Liens on cattle & equipt. | 11,086 | 18,044 | 26,172 | 34,514 |
| Installment contracts | 948 | 1,800 | 2,191 | 2,836 |
| Notes & other farm debts | 3,527 | 4,378 | 9,557 | 11,945 |
| Total Farm Liabilities | $ 36,908 | $ 59,259 | $ 83,735 | $112,962 |
| Nonfarm Liabilities | 1,010 | 122 | 633 | 622 |
| TOTAL LIABILITIES | $ 37,918 | $ 59,381 | $ 84,368 | $113,584 |
| Farm Net Worth (Equity Capital) | $ 91,909 | $114,942 | $141,191 | $173,749 |
| FAMILY NET WORTH | $100,683 | $125,055 | $153,168 | $185,638 |
| **Financial Measures** | | | | |
| Percent equity | 73% | 68% | 64% | 62% |
| Farm debt per cow | $1,153 | $1,261 | $1,351 | $1,486 |
| Available for debt service and living | $11,469 | $17,540 | $22,701 | $24,675 |
| Scheduled annual debt payments | $6,598 | $9,685 | $14,949 | $18,959 |
| Scheduled debt payment/cow | $206 | $206 | $241 | $249 |
| Scheduled debt payment as % of milk check | 21% | 19% | 23% | 23% |

* 15 of the 605 farms did not report.

Table 38. contd. FARM FAMILY FINANCIAL SITUATION BY HERD SIZE
590* New York Dairy Farms, January 1, 1976

| Item | Farms With: 85 to 99 Cows | 100 to 114 Cows | 115 to 129 Cows | 130 to 149 Cows | 150 or More Cows |
|---|---|---|---|---|---|
| Number of farms | 43 | 31 | 24 | 18 | 38 |
| **Assets** | | | | | |
| Livestock | $ 62,815 | $ 78,490 | $ 90,053 | $104,263 | $135,583 |
| Feed and supplies | 24,861 | 35,246 | 38,544 | 44,605 | 59,929 |
| Machinery & equipment | 52,339 | 61,977 | 77,313 | 80,416 | 90,548 |
| Land and buildings | 153,760 | 184,242 | 207,940 | 228,346 | 301,685 |
| Co-op investment | 4,533 | 9,127 | 6,475 | 10,624 | 12,683 |
| Accounts receivable | 8,294 | 11,295 | 11,670 | 15,438 | 27,214 |
| Cash & checking accounts | 2,876 | 2,836 | 1,777 | 2,376 | 4,157 |
| Total Farm Assets | $309,478 | $383,213 | $433,772 | $486,068 | $631,799 |
| Savings accounts | 2,953 | 5,408 | 7,593 | 2,020 | 1,056 |
| Cash value life insurance | 2,136 | 2,244 | 2,600 | 3,314 | 2,633 |
| Stocks and bonds | 3,950 | 325 | 2,396 | 1,413 | 1,447 |
| Nonfarm real estate | 860 | 1,354 | 15,820 | 9,000 | 4,894 |
| Auto (personal share) | 607 | 577 | 858 | 643 | 829 |
| All other | 569 | 2,553 | 2,628 | 2,468 | 4,154 |
| Total Nonfarm Assets | $ 11,075 | $ 12,461 | $ 31,895 | $ 18,858 | $ 15,013 |
| TOTAL ASSETS | $320,553 | $395,674 | $465,667 | $504,926 | $646,812 |
| **Liabilities** | | | | | |
| Real estate mortgage | $ 52,400 | $ 68,203 | $ 71,347 | $ 79,725 | $103,690 |
| Liens on cattle & equipt. | 33,890 | 51,319 | 44,123 | 70,482 | 83,250 |
| Installment contracts | 2,259 | 3,363 | 1,921 | 6,393 | 1,970 |
| Notes and other farm debt | 10,314 | 9,896 | 20,421 | 10,907 | 39,985 |
| Total Farm Liabilities | $ 98,863 | $132,781 | $137,812 | $167,507 | $228,895 |
| Nonfarm Liabilities | 34 | 572 | 1,066 | 44 | 597 |
| TOTAL LIABILITIES | $ 98,897 | $133,353 | $138,878 | $167,551 | $229,492 |
| Farm Net Worth (Equity Capital) | $210,615 | $250,432 | $295,960 | $318,561 | $402,904 |
| FAMILY NET WORTH | $221,656 | $262,321 | $326,789 | $337,375 | $417,320 |
| **Financial Measures** | | | | | |
| Percent equity | 69% | 66% | 70% | 67% | 65% |
| Farm debt per cow | $1,086 | $1,253 | $1,148 | $1,205 | $1,180 |
| Available for debt service and living | $31,741 | $40,375 | $46,192 | $53,782 | $63,326 |
| Scheduled annual debt payments | $17,992 | $24,515 | $20,815 | $28,360 | $38,194 |
| Scheduled debt payment/cow | $198 | $231 | $173 | $204 | $197 |
| Scheduled debt payment as % of milk check | 18% | 19% | 15% | 17% | 17% |

* 15 of the 605 farms did not report.

Table 39. COMPARISON OF FARMS BY TYPE OF BARN AND HERD SIZE
605 New York Dairy Farms, 1975

| Item | Herd Size (Number Cows) | | | | |
|---|---|---|---|---|---|
| | Under 55 | 55-69 | 70-99 | 100-149 | 150 & Over |
| Number of farms | | | | | |
| Free stall | 17 | 42 | 56 | 55 | 35 |
| Other | 232 | 86 | 57 | 20 | 5 |
| Number of men | | | | | |
| Free stall | 1.8 | 2.2 | 2.4 | 3.4 | 5.0 |
| Other | 1.8 | 2.3 | 2.8 | 3.8 | 5.5 |
| Land & bldgs./cow | | | | | |
| Free stall | $2,170 | $1,810 | $1,800 | $1,680 | $1,570 |
| Other | $2,040 | $1,890 | $1,930 | $1,770 | $1,400 |
| Tons hay crop/acre | | | | | |
| Free stall | 2.8 | 2.6 | 2.9 | 3.0 | 3.3 |
| Other | 2.2 | 2.4 | 2.6 | 2.9 | 2.2 |
| Lbs. milk sold/cow | | | | | |
| Free Stall | 12,800 | 12,900 | 12,900 | 13,600 | 13,600 |
| Other | 12,400 | 12,400 | 12,800 | 13,900 | 12,500 |
| Lbs. milk sold/man | | | | | |
| Free stall | 293,500 | 373,700 | 437,800 | 481,900 | 519,100 |
| Other | 291,400 | 330,200 | 361,100 | 409,600 | 437,900 |
| Labor cost/cow | | | | | |
| Free stall | $232 | $201 | $190 | $194 | $209 |
| Other | $230 | $205 | $219 | $215 | $193 |
| Machinery cost/cow | | | | | |
| Free stall | $233 | $241 | $226 | $224 | $197 |
| Other | $221 | $222 | $224 | $222 | $204 |
| Veterinary cost/cow | | | | | |
| Free stall | $15 | $17 | $19 | $21 | $18 |
| Other | $17 | $15 | $17 | $21 | $23 |
| Feed & crop expense/cow | | | | | |
| Free stall | $383 | $410 | $433 | $427 | $435 |
| Other | $390 | $385 | $395 | $468 | $402 |
| Debt/cow | | | | | |
| Free stall | $1,370 | $1,260 | $1,440 | $1,220 | $1,170 |
| Other | $1,240 | $1,410 | $1,200 | $1,170 | $1,250 |
| Labor & mgt. income/op. | | | | | |
| Free stall | $3,290 | $4,760 | $2,910 | $9,720 | $13,130 |
| Other | $1,480 | $2,520 | $1,110 | $6,260 | -$7,050 |

A total of 205 of the 605 farms in this study reported having free stall barns. A comparison has been made by size of herd and type of barn for selected business factors.

Table 40. SELECTED BUSINESS FACTORS BY MILKING SYSTEMS
605 New York Dairy Farms, 1975

| Item | Bucket and Carry | Dumping Station | Pipeline | Herringbone Parlor | Other Parlors |
|---|---|---|---|---|---|
| Number of farms | 27 | 187 | 196 | 164 | 31 |
| Percent of farms | 4% | 31% | 33% | 27% | 5% |
| **Capital Investment** | | | | | |
| (end of year) | | | | | |
| Livestock | $ 20,922 | $ 34,244 | $ 48,684 | $ 76,954 | $ 71,735 |
| Feed & supplies | 7,215 | 11,286 | 18,095 | 34,711 | 26,408 |
| Machinery & equipt. | 20,486 | 30,621 | 43,423 | 63,364 | 54,916 |
| Land & buildings | 73,164 | 93,253 | 127,291 | 181,552 | 175,050 |
| TOTAL INVESTMENT | $121,787 | $169,404 | $237,493 | $356,581 | $328,109 |
| **Financial Summary** | | | | | |
| Total Farm Rcts. | $ 37,230 | $ 57,890 | $ 86,110 | $148,843 | $130,940 |
| Total Farm Exp. | 36,097 | 56,459 | 82,485 | 138,960 | 127,728 |
| Labor & Mgt. Inc. | $ 1,133 | $ 1,431 | $ 3,625 | $ 9,883 | $ 3,212 |
| No. of operators | (29) 1.1 | (215) 1.1 | (231) 1.2 | (225) 1.4 | (34) 1.1 |
| LABOR & MGT. INC./OPR. | $ 1,055 | $ 1,245 | $ 3,077 | $ 7,209 | $ 2,931 |
| **Size of Business** | | | | | |
| Number of cows | 33 | 49 | 65 | 109 | 100 |
| Number of heifers | 21 | 35 | 48 | 84 | 67 |
| Lbs. of milk sold | 359,400 | 586,500 | 859,000 | 1,457,100 | 1,328,200 |
| Man equivalent | 1.8 | 2.0 | 2.3 | 3.2 | 3.0 |
| Crop acres | 111 | 158 | 190 | 323 | 268 |
| **Rates of Production** | | | | | |
| Milk sold/cow (lbs.) | 10,900 | 12,000 | 13,280 | 13,400 | 13,300 |
| Tons hay crops/acre | 1.8 | 2.1 | 2.7 | 3.0 | 2.7 |
| Tons corn silage/acre | 12.9 | 13.0 | 14.4 | 14.3 | 13.9 |
| **Labor Efficiency** | | | | | |
| Cows per man | 18 | 25 | 28 | 34 | 33 |
| Lbs. milk sold/man | 196,400 | 293,200 | 368,700 | 459,700 | 442,700 |
| **Costs** | | | | | |
| Feed purchased/cow | $282 | $296 | $309 | $315 | $342 |
| % Feed is of milk rcts. | 30% | 29% | 27% | 27% | 29% |
| Machinery cost/cow | $195 | $210 | $229 | $218 | $227 |
| Labor cost/cow | $290 | $225 | $209 | $202 | $192 |
| **Capital Efficiency** | | | | | |
| Investment/man | $66,550 | $84,700 | $101,930 | $112,490 | $109,370 |
| Investment/cow | $3,690 | $3,460 | $3,655 | $3,270 | $3,280 |
| Land & bldgs./cow | $2,220 | $1,900 | $1,960 | $1,700 | $1,750 |
| Machinery inv./cow | $620 | $625 | $670 | $580 | $550 |
| **Other** | | | | | |
| Price/cwt. milk sold | $8.61 | $8.53 | $8.61 | $8.71 | $8.79 |

Table 41. FARM BUSINESS SUMMARIES FOR INDIVIDUALS, PARTNERSHIPS, AND CORPORATIONS
605 New York Dairy Farms, 1975

| | Averages for: | | | | | |
|---|---|---|---|---|---|---|
| | 488 Individuals | | 104 Partnerships | | 13 Corporations | |
| CAPITAL INVESTMENT | | | | | | |
| | 1/1/75 | 1/1/76 | 1/1/75 | 1/1/76 | 1/1/75 | 1/1/76 |
| Livestock | $ 44,679 | $ 47,229 | $ 63,504 | $ 67,021 | $ 95,480 | $102,847 |
| Feed & supplies | 15,912 | 17,819 | 25,288 | 28,059 | 48,303 | 57,647 |
| Machinery & equipment | 39,135 | 41,703 | 47,992 | 52,480 | 75,314 | 82,712 |
| Land & buildings | 116,629 | 123,143 | 142,960 | 152,230 | 267,443 | 279,854 |
| TOTAL INVESTMENT | $216,355 | $229,894 | $279,744 | $299,790 | $486,540 | $523,060 |
| EXPENSES | | | | | | |
| Labor | | | | | | |
| Hired | | $ 6,701 | | $ 6,486 | | $ 18,743 |
| Feed | | | | | | |
| Dairy concentrate | | 20,352 | | 28,990 | | 49,385 |
| Hay and other | | 1,064 | | 1,037 | | 2,065 |
| Machinery | | | | | | |
| Machine hire | | 624 | | 978 | | 1,005 |
| Machinery repair | | 3,555 | | 5,636 | | 11,321 |
| Auto expense | | 312 | | 309 | | 468 |
| Gas and oil | | 2,425 | | 3,812 | | 5,772 |
| Livestock | | | | | | |
| Purchased animals | | 2,012 | | 2,539 | | 4,051 |
| Breeding fees | | 878 | | 1,378 | | 2,011 |
| Veterinary, medicine | | 1,194 | | 1,607 | | 3,065 |
| Milk marketing | | 1,643 | | 2,299 | | 4,684 |
| Other livestock expense | | 2,447 | | 3,610 | | 5,651 |
| Crops | | | | | | |
| Fertilizer and lime | | 3,954 | | 6,207 | | 16,337 |
| Seeds and plants | | 1,328 | | 1,923 | | 3,818 |
| Spray and other | | 1,135 | | 1,669 | | 2,828 |
| Real Estate | | | | | | |
| Land, building, fence repair | | 1,325 | | 1,794 | | 2,446 |
| Taxes | | 1,866 | | 2,650 | | 4,170 |
| Insurance | | 1,240 | | 1,815 | | 3,114 |
| Rent | | 932 | | 1,711 | | 3,925 |
| Other | | | | | | |
| Telephone (farm share) | | 300 | | 381 | | 719 |
| Electricity (farm share) | | 1,254 | | 1,777 | | 2,952 |
| Interest paid | | 5,978 | | 5,991 | | 15,993 |
| Miscellaneous | | 965 | | 1,435 | | 2,748 |
| TOTAL CASH EXPENSES | | $63,484 | | $ 86,034 | | $167,271 |
| Machinery depreciation | | 4,697 | | 6,366 | | 8,535 |
| Building depreciation | | 2,150 | | 2,705 | | 7,609 |
| Unpaid labor | | 1,050 | | 700 | | 350 |
| Interest on farm equity @ 7% | | 10,816 | | 15,760 | | 23,984 |
| TOTAL FARM EXPENSES | | $82,197 | | $111,565 | | $207,749 |

Table 41. FARM BUSINESS SUMMARIES FOR INDIVIDUALS, PARTNERSHIPS, AND CORPORATIONS contd.
605 New York Dairy Farms, 1975

| | Averages for: | | |
|---|---|---|---|
| | 488 Individuals | 104 Partnerships | 13 Corporations |
| **RECEIPTS** | | | |
| Milk sales | $73,479 | $103,959 | $189,253 |
| Crop sales | 709 | 1,400 | 3,441 |
| Dairy cattle sold | 4,208 | 6,350 | 11,122 |
| Livestock sales | 801 | 1,624 | 2,391 |
| Gas tax refund | 133 | 174 | 165 |
| Government payments | 279 | 291 | 269 |
| Work off farm | 81 | 61 | 0 |
| Custom machine work | 135 | 139 | 232 |
| Miscellaneous | 926 | 1,460 | 2,144 |
| TOTAL CASH RECEIPTS | $80,751 | $115,458 | $209,017 |
| Increase in livestock | 2,550 | 3,517 | 7,367 |
| Increase in feed & supplies | 1,907 | 2,771 | 9,344 |
| TOTAL FARM RECEIPTS | $85,208 | $121,746 | $225,728 |
| **FINANCIAL SUMMARY** | | | |
| Total Cash Receipts | $80,751 | $115,458 | $209,017 |
| Total Cash Expenses | 63,484 | 86,034 | 167,271 |
| NET FARM CASH FLOW | $17,267 | $ 29,424 | $ 41,746 |
| Total Farm Receipts | $85,208 | $121,746 | $225,728 |
| Total Farm Expenses | 82,197 | 111,565 | 207,749 |
| LABOR & MGT. INCOME/FARM | $ 3,011 | $ 10,181 | $ 17,979 |
| Number of operators | (488) 1.00 | (216) 2.08 | (29) 2.23 |
| LABOR & MGT. INCOME/OPERATOR | $ 3,011 | $ 4,904 | $ 8,062 |
| **BUSINESS FACTORS** | | | |
| Man equivalent | 2.3 | 3.1 | 4.3 |
| Number of cows | 66 | 92 | 151 |
| Number of heifers | 48 | 72 | 117 |
| Acres of hay crops | 113 | 146 | 174 |
| Acres of corn silage | 53 | 76 | 138 |
| Total acres of crops | 198 | 275 | 440 |
| Lbs. of milk sold | 849,800 | 1,201,800 | 2,167,500 |
| Lbs. of milk sold/cow | 12,900 | 13,100 | 14,400 |
| Tons hay crops/acre | 2.6 | 2.8 | 3.3 |
| Tons corn silage/acre | 13.9 | 15.1 | 13.1 |
| Cows per man | 29 | 30 | 35 |
| Lbs. of milk sold/man | 377,700 | 390,200 | 500,600 |
| % Feed is of milk sales | 28% | 28% | 26% |
| Feed & crop exp./cwt. milk | $3.15 | $3.23 | $3.34 |
| Fertilizer & lime/crop acre | $20 | $23 | $37 |
| Machinery cost/cow | $219 | $224 | $216 |
| Av. price/cwt. milk | $8.65 | $8.65 | $8.73 |

Table 42. COMPARISON OF FARM BUSINESS SUMMARIES FOR 1974 AND 1975
Same 436 New York Dairy Farms

| | Averages 1974 | | Averages 1975 | |
|---|---|---|---|---|
| CAPITAL INVESTMENT | | | | |
| | 1/1/74 | 1/1/75 | 1/1/75 | 1/1/76 |
| Livestock | $ 52,235 | $ 51,009 | $ 51,246 | $ 53,781 |
| Feed & supplies | 14,137 | 19,587 | 19,488 | 21,761 |
| Machinery & equipment | 37,558 | 42,260 | 42,966 | 45,817 |
| Land & buildings | 115,306 | 125,716 | 127,958 | 134,694 |
| TOTAL INVESTMENT | $219,236 | $238,572* | $241,658* | $256,053 |
| EXPENSES | | | | |
| Labor | | | | |
| Hired | $ 6,948 | | $ 7,660 | |
| Feed | | | | |
| Dairy concentrate | 23,816 | | 23,432 | |
| Hay and other | 1,227 | | 1,249 | |
| Machinery | | | | |
| Machine hire | 704 | | 730 | |
| Machinery repair | 3,657 | | 4,456 | |
| Auto expense | 286 | | 324 | |
| Gas and oil | 2,501 | | 2,873 | |
| Livestock | | | | |
| Purchased animals | 2,884 | | 2,013 | |
| Breeding fees | 905 | | 1,026 | |
| Veterinary, medicine | 1,232 | | 1,359 | |
| Milk marketing | 1,225 | | 1,990 | |
| Other livestock expense | 2,548 | | 2,855 | |
| Crops | | | | |
| Fertilizer and lime | 4,426 | | 4,993 | |
| Seeds and plants | 1,166 | | 1,548 | |
| Spray and other | 1,207 | | 1,356 | |
| Real Estate | | | | |
| Land, building, fence repair | 1,548 | | 1,517 | |
| Taxes | 1,882 | | 2,154 | |
| Insurance | 1,321 | | 1,426 | |
| Rent | 1,066 | | 1,244 | |
| Other | | | | |
| Telephone (farm share) | 304 | | 332 | |
| Electricity (farm share) | 1,187 | | 1,465 | |
| Interest paid | 5,386 | | 6,283 | |
| Miscellaneous | 832 | | 1,142 | |
| TOTAL CASH EXPENSES | $68,258 | | $73,427 | |
| Machinery depreciation | 5,054 | | 5,194 | |
| Building depreciation | 2,599 | | 2,469 | |
| Unpaid labor | 1,050 | | 1,050 | |
| Interest on farm equity @ 7% | 11,442 | | 12,456 | |
| Decrease in livestock | 1,226 | | -- | |
| TOTAL FARM EXPENSES | $89,629 | | $94,596 | |

* Operators often make adjustments in values "between" years.

Table 42. COMPARISON OF FARM BUSINESS SUMMARIES FOR 1974 AND 1975
contd. Same 436 New York Dairy Farms

| | Averages 1974 | Averages 1975 |
|---|---|---|
| RECEIPTS | | |
| Milk sales | $81,241 | $85,943 |
| Crop sales | 767 | 920 |
| Dairy cattle sold | 5,683 | 4,969 |
| Livestock sales | 1,281 | 1,009 |
| Gas tax refund | 139 | 145 |
| Government payments | 209 | 303 |
| Work off farm | 61 | 71 |
| Custom machine work | 101 | 120 |
| Miscellaneous | 830 | 1,072 |
| TOTAL CASH RECEIPTS | $90,312 | $94,552 |
| Increase in livestock | -- | 2,535 |
| Increase in feed & supplies | 5,450 | 2,273 |
| TOTAL FARM RECEIPTS | $95,762 | $99,360 |
| FINANCIAL SUMMARY | | |
| Total Cash Receipts | $90,312 | $94,552 |
| Total Cash Expenses | 68,258 | 73,427 |
| NET FARM CASH FLOW | $22,054 | $21,125 |
| Total Farm Receipts | $95,762 | $99,360 |
| Total Farm Expenses | 89,629 | 94,596 |
| LABOR & MGT. INCOME/FARM | $ 6,133 | $ 4,764 |
| Number of operators | (518) 1.19 | (532) 1.22 |
| LABOR & MGT. INCOME/OPERATOR | $ 5,162 | $ 3,905 |
| BUSINESS FACTORS | | |
| Man equivalent | 2.5 | 2.5 |
| Number of cows | 74 | 76 |
| Number of heifers | 53 | 56 |
| Acres of hay crops | 118 | 122 |
| Acres of corn silage | 60 | 61 |
| Total acres of crops | 215 | 225 |
| Lbs. of milk sold | 943,100 | 989,900 |
| Lbs. of milk sold/cow | 12,740 | 13,000 |
| Tons hay crops/acre | 2.7 | 2.7 |
| Tons corn silage/acre | 13.7 | 14.2 |
| Cows per man | 30 | 30 |
| Lbs. of milk sold/man | 377,200 | 396,000 |
| % Feed is of milk sales | 29% | 27% |
| Feed & crop exp./cwt. milk | $3.25 | $3.16 |
| Fertilizer & lime/crop acre | $21 | $22 |
| Machinery cost/cow | $203 | $220 |
| Av. price/cwt. milk | $8.61 | $8.68 |

Table 43. SELECTED FARM BUSINESS SUMMARY FACTORS
New York Dairy Farms, Selected Years 1965-1975

| Item | Year | | | |
|---|---|---|---|---|
| | 1965 | 1970 | 1974 | 1975 |
| Number of farms | 673 | 509 | 628 | 605 |
| Financial Summary | | | | |
| Average capital invested | $66,908 | $132,545 | $221,974 | $240,633 |
| Total farm receipts | $30,488 | $66,467 | $92,108 | $94,508 |
| Total farm expenses | $21,995 | $47,795 | $86,315* | $90,016* |
| Labor income per operator | $4,680 | $7,983 | $4,880 | $3,703 |
| Size of Business | | | | |
| Number of cows | 44 | 65 | 72 | 72 |
| Pounds of milk sold | 523,900 | 822,200 | 905,800 | 938,600 |
| Crop acres | 123 | 168 | 213 | 217 |
| Man equivalent | 1.8 | 2.2 | 2.4 | 2.4 |
| Total work units | 568 | 691 | 792 | 803 |
| Rates of Production | | | | |
| Milk sold per cow | 11,900 | 12,600 | 12,580 | 13,000 |
| Tons hay crops per acre | 2.1 | 2.7 | 2.6 | 2.6 |
| Tons corn silage per acre | 13 | 15 | 14 | 14 |
| Labor Efficiency | | | | |
| Cows per man | 24 | 30 | 30 | 30 |
| Pounds milk sold per man | 291,100 | 373,700 | 374,300 | 387,900 |
| Work units per man | 316 | 314 | 327 | 332 |
| Cost Control Factors | | | | |
| Machinery cost per cow | $116 | $175 | $201 | $221 |
| Machinery cost/cwt. milk | $.97 | $1.38 | $1.60 | $1.69 |
| Feed bought per cow | $154 | $192 | $318 | $312 |
| Feed bought/cwt. milk | $1.29 | $1.52 | $2.53 | $2.39 |
| Feed & crop expense/cwt. milk | $1.60 | $1.91 | $3.26 | $3.18 |
| % Feed is of milk receipts | 29% | 25% | 30% | 28% |
| Capital Efficiency | | | | |
| Total investment per man | $38,250 | $62,385 | $95,683 | $102,566 |
| Total investment per cow | $1,560 | $2,112 | $3,216 | $3,447 |
| Machinery investment/cow | $335 | $447 | $572 | $617 |
| Total investment/cwt. milk | $13 | $17 | $26 | $26 |
| Other | | | | |
| Price per cwt. milk sold | $4.41 | $6.10 | $8.57 | $8.65 |
| Acres hay crops | 81 | 119 | 117 | 120 |
| Acres corn silage | 20 | 49 | 61 | 59 |
| Total acres in crops/cow | 2.8 | 2.6 | 3.0 | 3.0 |
| Fertilizer & lime expense/crop acre | $9 | $13 | $20 | $21 |
| Farm income per cow | $193 | $287 | $291 | $276 |
| Labor income per cow | $106 | $145 | $80 | $62 |

* Includes interest paid, interest on equity capital, and building depreciation which were not included in total farm expenses prior to 1973. In earlier years, interest was charged on all capital and depreciation was included with inventory changes.

FARM BUSINESS SUMMARY
47 New York Dairy-Cash Crop Farms,* 1975

| CAPITAL INVESTMENT | 1/1/75 | 1/1/76 |
|---|---|---|
| Livestock | $ 51,580 | $ 54,991 |
| Feed & supplies | 33,712 | 33,682 |
| Machinery & equipment | 54,379 | 59,204 |
| Land & buildings | 170,514 | 180,170 |
| TOTAL INVESTMENT | $310,185 | $328,047 |

| EXPENSES | |
|---|---|
| Labor | |
| Hired | $ 11,117 |
| Feed | |
| Dairy concentrate | 15,105 |
| Hay and other | 838 |
| Machinery | |
| Machine hire | 1,870 |
| Machinery repair | 6,602 |
| Auto expense | 339 |
| Gas and oil | 4,683 |
| Livestock | |
| Purchased animals | 2,135 |
| Breeding fees | 949 |
| Veterinary, medicine | 1,580 |
| Milk marketing | 2,153 |
| Other livestock expense | 2,716 |
| Crops | |
| Fertilizer and lime | 9,531 |
| Seeds and plants | 2,839 |
| Spray and other | 3,026 |
| Real Estate | |
| Land, building, fence repair | 1,930 |
| Taxes | 3,004 |
| Insurance | 1,576 |
| Rent | 2,574 |
| Other Cash Expense | |
| Telephone (farm share) | 363 |
| Electricity (farm share) | 1,634 |
| Interest paid | 7,077 |
| Miscellaneous | 1,895 |
| TOTAL CASH EXPENSES | $ 85,536 |
| Machinery depreciation | 6,434 |
| Building depreciation | 3,693 |
| Unpaid labor | 700 |
| Interest on farm equity @ 7% | 16,857 |
| Decrease in feed & supplies | 30 |
| TOTAL FARM EXPENSES | $113,250 |

| RECEIPTS | |
|---|---|
| Milk sales | $ 82,287 |
| Crop sales | 22,189 |
| Dairy cattle sold | 4,413 |
| Other livestock sales | 1,504 |
| Gas tax refund | 314 |
| Government payments | 185 |
| Work off farm | 82 |
| Custom machine work | 438 |
| Miscellaneous | 3,116 |
| TOTAL CASH RECEIPTS | $114,528 |
| Increase in livestock | 3,411 |
| TOTAL FARM RECEIPTS | $117,939 |

| FINANCIAL SUMMARY | |
|---|---|
| Total Cash Receipts | $114,528 |
| Total Cash Expenses | 85,536 |
| NET FARM CASH FLOW | $ 28,992 |
| Total Farm Receipts | $117,939 |
| Total Farm Expenses | 113,250 |
| LABOR & MGT. INCOME/FARM | $ 4,689 |
| Number of operators (61) | 1.3 |
| LABOR & MGT. INCOME/OPERATOR | $ 3,615 |

| BUSINESS FACTORS | |
|---|---|
| Man equivalent | 2.9 |
| Number of cows | 73 |
| Number of heifers | 53 |
| Acres of hay crops | 119 |
| Acres of corn silage | 51 |
| Total acres of crops | 355 |
| Lbs. of milk sold | 953,700 |
| Lbs. milk sold/cow | 13,100 |
| Tons hay crops/acre | 3.1 |
| Tons corn silage/acre | 15.7 |
| Cows per man | 25 |
| Lbs. of milk sold/man | 326,600 |
| % Feed is of milk receipts | 18% |
| Feed & crop exp./cwt. milk | $320 |
| Fertilizer & lime/crop acre | $27 |
| Machinery cost/cow | $327 |
| Av. price/cwt. milk | $8.63 |

* Farms where crop sales amounted to 10 percent or more of milk sales.

FARM BUSINESS SUMMARY
55 New York Dairy-Renter Farms,* 1975

| CAPITAL INVESTMENT | 1/1/75 | 1/1/76 |
|---|---|---|
| Livestock | $39,872 | $42,939 |
| Feed & supplies | 14,207 | 15,564 |
| Machinery & equipment | 30,057 | 35,192 |
| Land & buildings | 2,287 | 2,595 |
| TOTAL INVESTMENT | $86,423 | $96,290 |

| EXPENSES | |
|---|---|
| Labor | |
| Hired | $ 4,668 |
| Feed | |
| Dairy concentrate | 19,166 |
| Hay and other | 1,920 |
| Machinery | |
| Machine hire | 580 |
| Machinery repair | 2,541 |
| Auto expense | 252 |
| Gas and oil | 1,918 |
| Livestock | |
| Purchased animals | 4,279 |
| Breeding fees | 864 |
| Veterinary, medicine | 1,033 |
| Milk marketing | 1,268 |
| Other livestock expense | 2,566 |
| Crops | |
| Fertilizer and lime | 2,918 |
| Seeds and plants | 976 |
| Spray and other | 832 |
| Real Estate | |
| Land, building, fence repair | 668 |
| Taxes | 276 |
| Insurance | 669 |
| Rent | 6,395 |
| Other Cash Expense | |
| Telephone (farm share) | 270 |
| Electricity (farm share) | 1,234 |
| Interest paid | 3,171 |
| Miscellaneous | 918 |
| TOTAL CASH EXPENSES | $59,382 |
| Machinery depreciation | 3,570 |
| Building depreciation | 69 |
| Unpaid labor | 1,050 |
| Interest on farm equity @ 7% | 4,187 |
| TOTAL FARM EXPENSES | $68,258 |

| RECEIPTS | |
|---|---|
| Milk sales | $66,404 |
| Crop sales | 516 |
| Dairy cattle sold | 4,198 |
| Other livestock sales | 905 |
| Gas tax refund | 79 |
| Government payments | 135 |
| Work off farm | 31 |
| Custom machine work | 45 |
| Miscellaneous | 983 |
| TOTAL CASH RECEIPTS | $73,296 |
| Increase in livestock | 3,067 |
| Increase in feed & supplies | 1,357 |
| TOTAL FARM RECEIPTS | $77,720 |

| FINANCIAL SUMMARY | |
|---|---|
| Total Cash Receipts | $73,296 |
| Total Cash Expenses | 59,382 |
| NET FARM CASH FLOW | $13,914 |
| Total Farm Receipts | $77,720 |
| Total Farm Expenses | 68,258 |
| LABOR & MGT. INCOME/FARM | $ 9,462 |
| Number of operators (65) | 1.18 |
| LABOR & MGT. INCOME/OPERATOR | $ 8,012 |

| BUSINESS FACTORS | |
|---|---|
| Man equivalent | 2.1 |
| Number of cows | 59 |
| Number of heifers | 43 |
| Acres of hay crops | 108 |
| Acres of corn silage | 51 |
| Total acres of crops | 185 |
| Lbs. of milk sold | 764,600 |
| Lbs. milk sold/cow | 13,000 |
| Tons hay crops/acre | 2.3 |
| Tons corn silage/acre | 12.4 |
| Cows per man | 28 |
| Lbs. of milk sold/man | 367,600 |
| % Feed is of milk sales | 29% |
| Feed & crop exp./cwt. milk | $3.12 |
| Fertilizer & lime/crop acre | $16 |
| Machinery cost/cow | $189 |
| Av. price/cwt. milk | $8.68 |

* A farm was classified as renter if no real estate was owned or if all cropland was rented.

FARM BUSINESS SUMMARY
Top 10 Percent of the Farms by Labor & Management Income
61 New York Dairy Farms, 1975

| CAPITAL INVESTMENT | 1/1/75 | 1/1/76 |
|---|---|---|
| Livestock | $ 73,640 | $ 81,924 |
| Feed & supplies | 32,889 | 41,148 |
| Machinery & equipment | 57,982 | 66,218 |
| Land & buildings | 159,624 | 173,227 |
| TOTAL INVESTMENT | $324,135 | $362,517 |

| EXPENSES | |
|---|---|
| Labor | |
| Hired | $ 13,903 |
| Feed | |
| Dairy concentrate | 33,342 |
| Hay and other | 922 |
| Machinery | |
| Machine hire | 973 |
| Machinery repair | 6,634 |
| Auto expense | 343 |
| Gas and oil | 3,966 |
| Livestock | |
| Purchased animals | 2,348 |
| Breeding fees | 1,534 |
| Veterinary, medicine | 2,217 |
| Milk marketing | 3,051 |
| Other livestock expense | 3,778 |
| Crops | |
| Fertilizer and lime | 8,755 |
| Seeds and plants | 2,522 |
| Spray and other | 2,214 |
| Real Estate | |
| Land, building, fence repair | 2,310 |
| Taxes | 2,744 |
| Insurance | 1,798 |
| Rent | 1,768 |
| Other Cash Expense | |
| Telephone (farm share) | 377 |
| Electricity (farm share) | 1,979 |
| Interest paid | 6,877 |
| Miscellaneous | 1,300 |
| TOTAL CASH EXPENSES | $105,655 |
| Machinery depreciation | 6,104 |
| Building depreciation | 3,777 |
| Unpaid labor | 700 |
| Interest on farm equity @ 7% | 19,442 |
| TOTAL FARM EXPENSES | $135,678 |

| RECEIPTS | |
|---|---|
| Milk sales | $137,679 |
| Crop sales | 1,502 |
| Dairy cattle sold | 8,016 |
| Other livestock sales | 1,462 |
| Gas tax refund | 227 |
| Government payments | 365 |
| Work off farm | 66 |
| Custom machine work | 92 |
| Miscellaneous | 2,005 |
| TOTAL CASH RECEIPTS | $151,414 |
| Increase in livestock | 8,284 |
| Increase in feed & supplies | 8,259 |
| TOTAL FARM RECEIPTS | $167,957 |

| FINANCIAL SUMMARY | |
|---|---|
| Total Cash Receipts | $151,414 |
| Total Cash Expenses | 105,655 |
| NET FARM CASH FLOW | $ 45,759 |
| Total Farm Receipts | $167,957 |
| Total Farm Expenses | 135,678 |
| LABOR & MGT. INCOME/FARM | $ 32,279 |
| Number of operators (78) | 1.3 |
| LABOR & MGT. INCOME/OPERATOR | $ 25,257 |

| BUSINESS FACTORS | |
|---|---|
| Man equivalent | 3.2 |
| Number of cows | 112 |
| Number of heifers | 88 |
| Acres of hay crops | 162 |
| Acres of corn silage | 97 |
| Total acres of crops | 331 |
| Lbs. of milk sold | 1,589,000 |
| Lbs. of milk sold/cow | 14,200 |
| Tons hay crops/acre | 3.1 |
| Tons corn silage/acre | 15.9 |
| Cows per man | 35 |
| Lbs. of milk sold/man | 501,300 |
| % Feed is of milk receipts | 24% |
| Feed & crop exp./cwt. milk | $2.95 |
| Fertilizer & lime/crop acre | $26 |
| Machinery cost/cow | $200 |
| Av. price/cwt. milk | $8.66 |

FARM BUSINESS SUMMARY
Average of 605 New York Dairy Farms, 1975

| CAPITAL INVESTMENT | 1/1/75 | 1/1/76 |
|---|---|---|
| Livestock | $ 49,006 | $ 51,826 |
| Feed & supplies | 18,220 | 20,435 |
| Machinery & equipment | 41,435 | 44,437 |
| Land & buildings | 124,396 | 131,511 |
| TOTAL INVESTMENT | $233,057 | $248,209 |

| EXPENSES | |
|---|---|
| Labor | |
| Hired | $ 6,923 |
| Feed | |
| Dairy concentrate | 22,460 |
| Hay and other | 1,081 |
| Machinery | |
| Machine hire | 693 |
| Machinery repair | 4,079 |
| Auto expense | 315 |
| Gas and oil | 2,735 |
| Livestock | |
| Purchased animals | 2,146 |
| Breeding fees | 988 |
| Veterinary medicine | 1,305 |
| Milk marketing | 1,821 |
| Other livestock expense | 2,716 |
| Crops | |
| Lime and fertilizer | 4,607 |
| Seeds and plants | 1,483 |
| Spray and other | 1,263 |
| Real Estate | |
| Land, building, fence repair | 1,430 |
| Taxes | 2,050 |
| Insurance | 1,379 |
| Rent | 1,130 |
| Other | |
| Telephone (farm share) | 323 |
| Electricity (farm share) | 1,381 |
| Interest paid | 6,196 |
| Miscellaneous | 1,084 |
| TOTAL CASH EXPENSES | $69,588 |
| Machinery depreciation | 5,066 |
| Building depreciation | 2,363 |
| Unpaid labor | 1,050 |
| Interest on farm equity @ 7% | 11,949 |
| TOTAL FARM EXPENSES | $90,016 |

| RECEIPTS | |
|---|---|
| Milk sales | $81,206 |
| Crop sales | 886 |
| Dairy cattle sold | 4,725 |
| Livestock sales | 976 |
| Gas tax refund | 141 |
| Government payments | 281 |
| Work off farm | 76 |
| Custom machine work | 138 |
| Miscellaneous | 1,044 |
| TOTAL CASH RECEIPTS | $89,473 |
| Increase in livestock | 2,820 |
| Increase in feed & supplies | 2,215 |
| TOTAL FARM RECEIPTS | $94,508 |

| FINANCIAL SUMMARY | |
|---|---|
| Total Cash Receipts | $89,473 |
| Total Cash Expenses | 69,588 |
| NET FARM CASH FLOW | $19,885 |
| Total Farm Receipts | $94,508 |
| Total Farm Expenses | 90,016 |
| LABOR & MGT. INCOME/FARM | $ 4,492 |
| Number of operators (734) | 1.2 |
| LABOR & MGT. INCOME/OPERATOR | $ 3,703 |

| BUSINESS FACTORS | |
|---|---|
| Man equivalent | 2.4 |
| Number of cows | 72 |
| Number of heifers | 54 |
| Acres of hay crops | 120 |
| Acres of corn silage | 63 |
| Total acres of crops | 217 |
| Lbs. of milk sold | 938,600 |
| Lbs. of milk sold/cow | 13,036 |
| Tons hay crops/acre | 2.6 |
| Tons corn silage/acre | 14.0 |
| Lbs. of milk sold/man | 387,850 |
| Cows per man | 30 |
| % Feed is of milk sales | 28% |
| Feed & crop exp./cwt. milk | $3.18 |
| Lime & fertilizer/crop acre | $21 |
| Machinery cost/cow | $221 |
| Av. price/cwt. milk | $8.65 |